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ABSTRACT

The study is designed to assist police and other law enforcement agencies, as well as local government officials, in planning new burglary prevention activities and modifying existing ones. Information was compiled from (1) a survey of 50 United States police departments, (2) site visits to 12 departments with operating burglary prevention programs, (3) a literature review, and (4) meetings with offenders, victims, and law enforcement, business, and citizen groups. The study's major findings and recommendations are presented in chapter 2, covering problems that communities face in preventing burglaries and in developing prevention programs. Chapter 3 identifies burglary prevention activities currently used in the 50 cities surveyed. Several of those activities are discussed in detail in chapters 4 through 8: crime-patterns and vulnerability analysis and evaluation, community education, premise security surveys, property marking programs, patrol and surveillance activities, and anti-fencing operations. Tables provide statistics on burglaries and crime prevention programs. Appended materials (28 pages) describe: various police crime prevention training programs, the Minnesota Crime Watch program, Oakland and Los Angeles (California) security ordinances, A Model for Estimating Aggregate Deterence and Apprehension Effects, and a two-page bibliography. (BP)

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POLICE BURGLARY PREVENTION PROGRAMS

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FOREWORD

Controlling and reducing burglary poses a particularly difficult problem for law enforcement agencies. The huge volume of burglary cases strains the investigative resources of police. Because it is a crime of stealth and opportunity, burglars often go undetected. Typically, clearance rates are quite low and stolen property is seldom recovered.

With the rapid increase in burglary rates, both police and citizens have recognized the need for cooperative action to prevent and reduce burglaries. Many communities have initiated a variety of preventive programs. In general, these efforts involve fairly simple measures: making facilities physically more secure; marking property with identification numbers that can be traced; tailoring police patrol to burglary patterns; and increasing the vigilance and responsiveness of citizens in protecting their homes and property.

While each of these steps offers some benefit, good results are not automatic. The key to success lies in selecting the right combination of specific measures and the appropriate overall approach to implementing a comprehensive program.

To help local communities plan and carry out effective prevention programs, the National Institute is publishing this Prescriptive Package which outlines the options available, provides guidance on selecting and coordinating alternative actions, and presents techniques for managing and evaluating operating programs. The information given here is based upon the experience of a number of police departments. We believe the handbook will be of value to many departments, whether they are initiating new programs, modifying existing ones, or simply seeking ways to cope with the burglary problem.

GERALD M. CAPLAN
Director
National Institute of Law Enforcement
and Criminal Justice

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We'd like to know what you think of this Prescriptive Package.

The last page of this publication is a questionnaire.

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CHAPTER I. INTRODUCTON

Burglary is one of the most rapidly increasing crimes in the nation. In recent years, reported burglaries have grown far faster than the population—and yet, as shown by victimization surveys, nearly half of all burglaries are not even reported.

To meet this threat, police departments across the nation have initiated or expanded burglary prevention activities. While some efforts are thought to have succeeded, few have had any observable effect and none has had national impact. Yet the need for action is widely recognized and communities continue to search for solutions.

This book is designed to assist police and other law enforcement agencies, as well as local government officials, in planning new burglary prevention activities and modifying existing ones. To provide guidance based on actual experiences, the authors studied currently operating or recently completed projects that could be adapted by a variety of communities. Information was compiled from (1) a survey of 50 police departments throughout the United States; (2) site visits to 12 departments with operating burglary prevention programs; (3) a review of literature on burglary and its prevention; and (4) meetings with convicted burglers, jailers, victims, police officers, citizen groups, the FBI, government agencies, the Police Foundation, State Criminal Justice Planning Agencies, the International Association of Chiefs of Police, alarm industry representatives, insurance industry officials, and educators. The evaluative results reported here were gathered from existing data and extensive interviews with police personnel. Special data collection efforts were not initiated for any specific burglary prevention project.

A. Focus of the Document

This book emphasizes steps that communities and their police departments can take to deter burglaries of both residences and businesses. Included are "target hardening techniques"—to make it more difficult to commit a burglary—and actions to increase the risk of apprehension or reduce the potential value of stolen goods. Both activities are of great interest to police departments and are the most feasible to implement.

The book also focuses on the activities' operational characteristics so as to provide guidance on what to implement and how to do so. Technical aspects of target hardening devices to prevent burglaries are not emphasized, since they are already covered in hardware publications. Similarly, burglary prevention for special categories of businesses—such as banks—is not covered, since the audience would be limited and, in most cases, extensive documentation already exists.

B. Organization of the Material

The major findings and recommendations of this study are presented in Chapter II, "Burglary and Its Prevention." It covers problems that communities face in preventing burglary and factors that they can take advantage of in developing prevention programs. Chapter III identifies burglary prevention activities currently used in the cities surveyed for this study. Several of those activities are discussed in detail in Chapters IV through VIII: crime-pattern and vulnerability analysis and evaluation; community education; premise security surveys; property marking programs; patrol and surveillance activities; and anti-fencing operations.

Most departments contacted during preparation of this book requested not only a synthesis of the findings, but detailed descriptions of the history and operation of burglary prevention programs in a variety of locations. To meet the latter need, an expanded version of this document is available.[1]

[1] Copies of the expanded version which include case studies of Burglary Prevention Programs in ten cities, can be obtained at cost from the authors at The Urban Institute, 2100 M Street, N.W., Washington, D.C. 20037. Cities studied and characteristics of the programs they operate are given in Table 5 on pages 10 and 11 of this report.

CHAPTER II. BURGLARY AND ITS PREVENTION

In developing a burglary prevention program, many police departments have profited from studying the nature of the burglary problem and the public's awareness of it. While some actions aimed at reducing burglary might appear attractive to police, operational difficulties often are encountered in implementing them. Success depends on being aware of the difficulties and taking them into consideration in planning programs.

A. The Burglary Threat and Potential for its Reduction

During the last dozen years, the rate of reported burglaries has more than doubled—from five per 1,000 inhabitants in 1960 to 13 per 1,000 in 1973 (see Figure 1).

However, the problem is even greater than that, for a large number of burglaries are not even reported to police. National Opinion Research Center surveys[1] of 10,000 households in 1965 and 1966 found that only 58 percent of the burglaries of those households were reported. National Crime Panel surveys conducted by LEAA in 13 large cities from 1972 to 1973 indicate that, depending on the city, only 50 to 70 percent of residential burglaries and 73

[1]National Opinion Research Center. See the President's Commission on Law Enforcement and Administration of Justice, *Task Force Report: Crime and its Impact*, Government Printing Office, 1967.

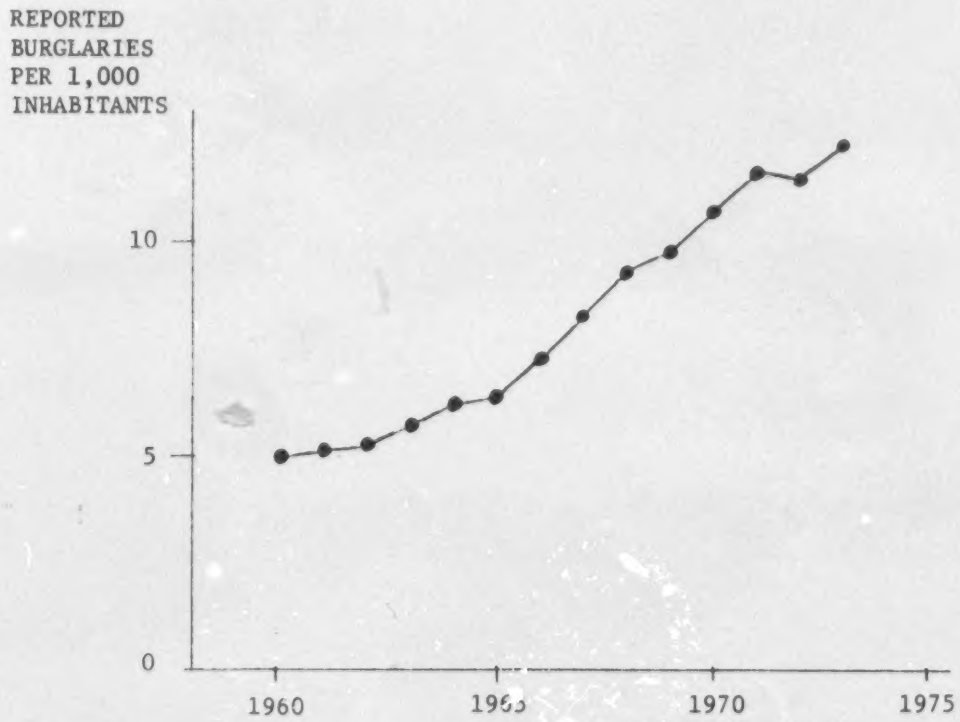


FIGURE 1. Reported burglaries per 1,000 inhabitants in the United States

Source: FBI Uniform Crime Reports for 1960 through 1973.

to 81 percent of commercial burglaries were reported (Table 1).

TABLE 1.—
Percent of Burglary Victimization Reported to the Police

Type of Burglary	*Range over thirteen cities*[2]
	% Reported
Household	50 to 70
Forcible entry	66 to 78
No force entry	38 to 52
Attempted forcible entry	25 to 37
Commercial	73 to 81

Estimates of the actual burglary rate in large cities are given in Table 2, as extracted from National Crime Panel Surveys conducted in 1972 and 1973. Based on these rates, the average household in a large American city can expect to suffer one burglary or attempted burglary every 6 to 15 years, depending on the city. Commercial establishments can expect one burglary or attempted burglary every 1.4 to 3.2 years, depending on the city.

The need for prevention activities is further indicated by statistics on apprehension of burglars and return of stolen property. On the average, there is only one arrest for every six reported burglaries. But since in some areas only about half the burglaries are reported, the arrest rate may be as low as one in twelve, or less than 10 percent.

There is considerable potential for burglary prevention, as shown by the rates in Table 2 for "forcible entry burglaries," "no force burglaries" and "attempted forcible entries or attempted burglaries." About one-third of all household burglaries were accomplished without a forced entry, indicating that many households were not even locked. On the other hand, burglars tried but failed to gain entry in about a quarter of the known attempts, indicating that prevention efforts are working in many

[2]Atlanta, Baltimore, Cleveland, Dallas, Denver, Newark, Portland, St. Louis, Chicago, Detroit, Los Angeles, New York, Philadelphia. SOURCE: U.S. Department of Justice, LEAA, National Criminal Justice Information and Statistics Service "Crime in Eight American Cities" Advance Report, July 1974, page 39. (Crimes from September 1971 through August 1972 for first eight cities listed above.) "Crime in the Nation's Five Largest Cities" Advance Report, April 1974, page 29. (Crimes in the 12 months prior to the first quarter of 1973 for the last five cities listed above.)

TABLE 2.—
Burglary Rates Derived from Victimization Survey

Type of burglary	*Range over thirteen cities*[3]
Residential	Rate per 1,000 households per year
Forcible entry	28 to 89
No Force entry	18 to 66
Attempted forcible entry or attempted burglary	21 to 42
TOTAL	67 to 197
Commercial	Rate per 1,000 establishments per year
Completed	233 to 544
Attempted	82 to 203
TOTAL	315 to 747

cases. For commercial establishments also, preventive efforts are somewhat effective since about a quarter of the attempts fail.

Moreover, a large segment of the public at least claims to believe in preventive actions. A nationwide survey[4] by the Survey Research Center, Ann Arbor, Michigan, asked, "How important do you feel it is to lock your door when you are going out of the house for just an hour or two?" The responses were:

- "very important" (56%)
- "somewhat important" (17%)
- "not very important" (15%)
- "not important at all" (12%)

While most people (73 percent) thus seem prepared to take simple burglary prevention actions, many do not do so and 27 percent do not even believe that such action is important. Clearly, there is a need for motivation and leadership by public agencies to promote preventive actions.

The burglary threat is far from uniform among cities or within a city among all household or commercial establishments, and police departments have profited by taking variations into account when developing a prevention program. One striking fact is that the reported burglary rate is higher in larger cities, as shown in Table 3.

[3]See footnote 2.

[4]Reported in *Social Indicators*, 1974, published by the U.S. Office of Management and Budget, p. 212.

TABLE 3.—
1973 Reported Burglaries Per 1,000 Inhabitants

City size (Population)	*Burglary rate*
Over 1,000,000	18.5
500,000 to 1,000,000	19.6
250,000 to 500,000	21.0
100,000 to 250,000	18.1
50,000 to 100,000	13.4
25,000 to 50,000	11.4
10,000 to 25,000	9.7
Under 10,000	8.2
Rural	5.9

Source: FBI Uniform Crime Reports, 1973

Within a city, household burglary rates often are correlated with demographic characteristics. For example, black households suffer a much higher burglary rate, as do households where the head is under 35 years old. The correlation of burglaries to other factors—owned vs. rented homes—depends very much on the city.

A police department often can take advantage of such characteristics in developing prevention programs. For example, many burglaries are committed by juveniles, and several cities have consequently designed special patrol projects geared to youth activity patterns. Other factors to be considered are the public view of burglary and the financial cost of the crime and its prevention.

1. *The public view of burglary*. By definition, burglary is a crime against property and not against a person. The primary measure of loss is the value of property stolen or damaged. But the community's view of burglary also is affected by the fear of confronting a burglar, the anger at knowing that a burglar has entered one's home or business and probably will not be apprehended, and the risk that a burglary may explode into violent assault.

A recent statewide survey in Maryland[5] asked respondents to name the most important problems facing the community. The most frequently mentioned was crime and related problems (49%) followed by economy (24%) and provision of public services (13%). Respondents also were asked how much they feared various crimes (very fearful, somewhat fearful and so on). The most feared crime was vandalism (50%) followed closely by burglary (47%), robbery (46%) and assault (42%). However, citizens did not attach the highest priority to he most feared crime. Rape ranked highest in priority with 44% of those surveyed, followed in turn by murder/manslaughter (36%), burglary (30%), assault (25%) and vandalism (24%). Thus, in Maryland, burglary is the second most feared crime and is given the third highest priority by the public.

2. *Financial costs of burglary*. The average dollar loss per reported burglary of all types in 1973 was $337. A 1966 survey found that businesses averaged one burglary about every three years. Retail ghetto businesses averaged about one per year. Burglary accounted for about one-third of business dollar losses from all crimes (employee theft and shoplifting are the other large categories). Burglary losses for all businesses were about 7 cents per $10 in receipts per year. Small businesses had a much higher loss rate—approximately 25 cents per $10.[6]

B. Matching Resources to the Threat

Despite the increase in burglaries and the potential for successful prevention activities, programs often cannot be justified solely on the grounds that they would reduce burglary losses. For example, increasing the total police department budget by 10 percent to cover a new burglary prevention activity[7] would cost about the same as the total burglary loss. (The number of law enforcement employees in the United States averages 2.3 per 1,000 population, according to FBI data. Assuming $15,300 as the total cost per employee per year, the expenditures per citizen are about $35 per year. Ten percent of that is about equal to the average burglary loss of $4 per person, per year.)

Since large burglary prevention programs are difficult to justify purely on economic grounds, two principal courses of action are open:

- To concentrate burglary prevention in high risk areas or in situations where an unusually high reduction in losses is likely; and
- To consider citizen fear, preference and other non-economic measures in guiding decisions about expenditures for burglary prevention. Such measures include citizen ranking by importance of (1) general categories of problems;

[5]News Release, November 13, 1974, "Highlights of Findings State-wide Public Opinion Survey," Governor's Commission on Law Enforcement and Administration of Justice, Cockeysville, Maryland.

[6]Data for business crime were obtained from *Crime Against Small Business*, U.S. Senate 91st Congress, Document No. 91-14, Government Printing Office, 1969, Appendix A, Field Survey.

[7]Adding enough officers to send a team of two officers to spend one hour per household per year would increase the average police department's budget by about 10 percent.

(2) fear by type of crime; (3) possible police action in connection with related crimes; and (4) alternative burglary prevention activities. The number of thwarted burglary attempts also can be cited to show citizen concern, although the equally large number of successful no-force entries indicates that many citizens are either unconcerned or unwilling to take even the simplest preventive actions.

C. Prevention Programs

Current burglary prevention and control efforts fall into three major component categories of activities: *crime-pattern and vulnerability analysis; reduction of opportunity or target hardening* (community education, premise security surveys, property marking); and *surveillance* (patrol, alarms, anti-fencing efforts).

Table 4 lists a variety of burglary prevention components, each with three levels of activity: passive, active, and advocacy. Completion of all components on a given level will help provide an orderly and comprehensive program. But each department should decide the order in which to implement components on a given level, in order to match the program to the city's resources and needs.

1. *The levels.* On the passive level, activities generally are low profile and low cost and require a very small manpower commitment. Such efforts are generally found in small departments and where burglary is not a major problem. As a rule, the passive level does not achieve striking results.

At the active level, police solicit opportunities to work with the public in attacking crime. They also are more aggressive in enforcing security ordinances and in undertaking surveillance. Both the cost and the results of prevention activities go up at this level, and decisions on specific methods must take into account both the size of the burglary problem and local resources available to deal with it.

At the advocacy level, police and citizen activities are aimed at large scale adoption of crime prevention ideals through group and legal action, such as security ordinances, building codes, and regulating the sale of secondhand items.

2. *Components of a prevention program.*

a. *Crime-pattern and vulnerability analysis* is used primarily in allocating resources. On a passive level it consists of analyzing reported burglaries and ascertaining the distribution of burglaries by method of operation and site characteristics. On an active level, sites (commercial and/or residential) are surveyed to ascertain the degree of coverage by burglary prevention activities and levels of victimization. The advocacy level entails proposing or conducting demonstrations or experiments (as indicated by results of the two preceding levels) to provide evaluative information on the effectiveness of specific burglary prevention activities.

b. *Community education* is a long established activity in police departments. On a passive level, it entails speaking only on citizen request and having crime prevention material available to be picked up by the public. At an active level, departments advertise their services; solicit opportunities to meet with civic, homeowner and business groups; distribute crime prevention material by mail or door to door; and set up crime prevention exhibits in public areas and in vans. On an advocacy level, private and government organizations promote crime prevention through environmental design, such as structural and landscape security and lighting programs and, modifications of appropriate codes and ordinances. One important facet of such interaction is resolving conflicts between security recommendations and fire and other safety requirements.

c. *Premise security surveys* result in recommendations for improved residential or commercial security. On a passive level, surveys are provided only on request of a citizen or business owner, and police rely on voluntary compliance with security ordinances. An active program involves advertising the availability of surveys, soliciting appointments to conduct them and actively enforcing security ordinances. On an advocacy level, legislation on commercial and residential security is promoted or reviewed to determine what, if any, action is appropriate.

d. *Property marking programs* (e.g., Operation Identification) operate at only two levels of activity —passive and active. On the passive level, engraving tools are available for borrowing by citizens or citizens use their own engravers. On the active level, the department advertises the availability of engraving tools, may offer door-to-door engraving services and keeps up-to-date records of participants' identification numbers.

e. *Anti-fencing operations* on a passive level entails only checking on pawn shops and other places dealing in secondhand goods. At the active level, there are undercover operations to identify and break up fencing operations, and activities and intelligence are coordinated with other jurisdictions. Advocacy anti-fencing activities include the promotion or review of legislation regulating the sale of secondhand goods.

TABLE 4.—Shopping List for Burglary Prevention Program Components

Level of effort	Program Components						
	Crime pattern and vulnerability analysis	*Community education*	*Premises surveys*	*Property marking*	*Anti-fencing*	*Patrol*	*Alarms*
Passive	Perform analysis of reported burglaries. Ascertain distribution of burglaries by M O and site characteristics.	Speak only on unsolicited request. Make printed material available to be picked up.	Conduct surveys only in response to unsolicited request. Rely on voluntary compliance with security ordinances.	Make engraving tools available for borrowing by citizens. Have citizens use their own engravers.	Check on pawn shops and other places dealing in second-hand goods.	Conduct routine patrol.	Respond only to selected types of privately operated alarms.
Active	Perform surveys of sites to ascertain degree of coverage by type of burglary prevention activities and levels of victimization.	Advertise availability of services and directly solicit opportunities for presentation. Distribute printed material door to door, or by mail. Sponsor crime prevention exhibits in public areas and in vans.	Advertise availability of services, directly solicit appointments to conduct surveys. Enforce existing security ordinances.	Advertise availability of engraving tools. Offer door-to-door engraving service. Maintain up-to-date records of participant identification numbers.	Conduct undercover operations. Coordinate activities and intelligence with other jurisdictions	Conduct: Burglary-specific patrol. Truancy patrol Bicycle patrol Suveillance of suspects. Saturation patrols of high-crime areas.	Conduct alarm installation and surveillance in high-incident targets. Levy fines on excessive false alarms.
Advocacy	Propose or conduct demonstrations or experiments as indicated by above results	Interact with private and government organizations to promote crime prevention through environmental design (e.g., structure, landscape, lighting). Address conflicts with fire and other safety requirements.	Promote or review legislation on commercial and residential security standards.		Promote or review legislation regulating the sale of second-hand goods.		

f. *Patrol efforts* operate at only passive and active levels. On a passive level, routine patrol operations are carried out. On an active level, a variety of special patrol techniques are used: burglary-specific patrol, truancy patrol, bicycle patrol, surveillance of suspects, and saturation patrol of high-crime areas.

g. *Alarm efforts* also operate on just two levels of activity. On a passive level police respond only to selected types of private alarms. On an active level, police install alarms and conduct surveillance for high-incident targets, and fines are levied for excessive false alarms.

Operational details are given in subsequent chapters on each of the major categories of prevention programs. A department can exercise a great deal of discretion in the design of a program through the selection of components, and in the way they are linked together in the final implementation.

CHAPTER III. CHARACTERISTICS OF BURGLARY PREVENTION PROGRAMS

To determine the characteristics of currently operating burglary prevention programs, three sequential reviews were conducted. First, the literature on burglary and its prevention was reviewed. Next, through a national survey of police departments, information was gathered about specific burglary prevention activities. Finally, site visits were conducted to obtain in-depth information about burglary prevention programs.

A. Overview of Program Components

During May and June 1974, 50 police departments (one selected randomly from each state) were contacted to determine patterns of burglary prevention activities. Forty-seven responded.[1] Twenty-nine of the 50 cities had a population above 50,000 and 21 had a population under 50,000.

The departments reported a variety of burglary prevention activities, including dissemination of information to the public, business and/or residential premise security surveys, property marking, and special patrol efforts. About one quarter of the departments have a very low level of burglary prevention activity. A few of them said burglary is not a major problem; the others blamed a lack of manpower.

When asked why particular anti-burglary approaches were undertaken, police officials cited a variety of reasons. Some had attended the National Crime Prevention Institute at the University of Louisville and had heard of particular prevention strategies. Some learned of what other departments were trying through publications, such as *The Police Chief*, or by word of mouth. Some said they simply had tried anything they could think of. Others frankly said they didn't really know why they were doing certain things, they just were. On the whole, officials confirmed that burglary is a problem and that they are "grabbing for straws" trying to combat it.

[1]Forty-two interviews were completed by telephone, two were done in person, interviews were mailed to six departments and returned by three.

The real difficulty, they said repeatedly, is getting the public to recognize that burglary is a problem. Almost all were looking for ways to motivate the public to protect their homes and businesses.

All but two of the departments contacted are engaged in *disseminating burglary prevention information to the public*. Usually this involves speaking engagements at the request of a club, community group, or civic organization, although some departments actively solicit such opportunities. Some departments give burglary prevention talks almost daily; others say problems, such as drugs or street crime, are of more concern to the public. Most departments also distribute brochures on home and/or business security, but a few say their budgets are so low that they cannot afford to pay for printed materials. (One department has a printing machine but cannot afford to operate it.) Many officials say such activities generally fail to get citizens more involved. However, some of the talks have resulted in the organization of "Neighborhood Watch Programs" which encourage people to report suspicious persons to the police.

Home and business security surveys are conducted by 38 of the 47 departments. Most are requested by homeowners or businessmen who want police to recommend security measures. A few departments report that they make a follow-up visit to the home or business to see if their recommendations have been complied with, and some have found that almost 100 percent have. One official cautioned, however, that "compliance" is not enough; the quality of the hardware or alarm system must be high or it will be ineffective. The frequency of survey activities ranges from daily to seldom, and the number of officers ranges from whoever is available to a separate burglary prevention team. Some officials say their survey efforts have had little effect, while others say that no surveyed home or business has been burglarized.

Property marking programs are widespread. Often called "Operation Identification," the programs entail marking property, usually with a drivers li-

cense number of Social Security number. Thirty-seven of the departments surveyed have a property marking program; a few tried it but discontinued it because no one borrowed the engraving tools. The problem, again, is motivating the public to mark property and display stickers on doors and windows. Some officials say property marking has helped in recovering stolen goods, discouraging burglars, and occasionally in apprehending burglars. Usually, however, these opinions are undocumented, and officials admit that the project could simply steer burglars away from marked homes to others without actually reducing crime.

Patrol activities range from saturation patrol to training officers to watch for signs of security deficiencies and burglaries in progress. Sixteen of the 47 departments have burglary patrols. Several mentioned that patrolling may result merely in crime displacement rather than prevention, but one official said his officers had caught 8 to 10 burglars in the act because of increased surveillance of businesses on their evening beats.

When asked to name their most urgent information needs in the area of burglary prevention, respondents frequently said, "Everything." In fact, most officials are interested in learning what other departments are doing (particularly in similar sized jurisdictions), at what level of effort, and at what cost.

B. Characteristics of Sample Programs

To obtain more detailed information, site visits were made to ten police departments with ongoing burglary prevention programs.[2] Information from these cities is presented in Table 5 and integrated into the discussion of specific program components in subsequent chapters. A detailed analysis of the burglary prevention programs by city is available from The Urban Institute.[3]

The cities visited range in population from approximately 68,000 to 745,000. The number of sworn police officers ranges from 11 to 35 per 10,000 population. Two cities, Denver and St. Louis, are LEAA Impact Cities that have received special federal funds to attack particular types of crime, including burglary. Two other cities, Albuquerque and San Jose, are LEAA Pilot Cities and have received special anti-crime funds. San Jose and Albuquerque also have local police department funds specifically for burglary prevention. The remaining cities' anti-burglary efforts are funded both by grants and departmental money, with the exception of San Bernardino, where special burglary prevention efforts are covered by outside funding.

The basic concept of most of those burglary prevention efforts is to expand community services, including intensified community education, property marking programs and premise security surveys. The program in St. Paul, Minnesota, began as an expansion of community services effort and is now part of a statewide anti-burglary program. The San Jose program is a controlled experiment designed to measure the impact of specific burglary prevention approaches.

Burglary prevention activities in the ten departments are coordinated in a variety of ways. In many cases there are units devoted to crime prevention (or burglary specific) efforts. In some cases the activities are integrated throughout the entire department, sometimes augmented by paid or volunteer civilians or police reserve officers. Special tactical or anti-fencing work usually is done by a separate unit. Most departments have outside assistance from civic organizations, local businesses, women's organizations and the insurance industry.

[2]Albuquerque, N.M.; Chula Vista, Calif.; Denver, Colo.; Huntington, W. Va.; Indianapolis, Indiana; St. Louis, Mo.; St. Paul, Minn.; San Bernardino, Calif.; San Jose, Calif.; and Topeka, Kans.

[3]See footnote, page 1.

TABLE 5. Overview of Selected Police Burglary Prevention Programs

	Albuquerque, New Mexico	Chula Vista, California	Denver, Colorado	Huntington, West Virginia	Indianapolis, Indiana
CITY AND POLICE DEPARTMENT CHARACTERISTICS					
Population (1970)	243,751	67,901	515,000	74,315	622,000
UCR Reported Burglaries per 1,000 population (1973)	28.47	16.88	29.25	9.04	12.34
Number of sworn officers in Department	447	81	1,365	116	1,110
Number of Civilians in Department	59	25	296	35	200
BURGLARY PREVENTION PROGRAM					
Concept of Program	Expanded community services and special operations.	Expanded community services.	Expanded community services and special operations.	Expanded community services.	Expanded community services.
Organization	Community Services Division and Special Operations Section engaged in specific burglary prevention activities.	Burglary prevention activities integrated throughout department. Supplement staff with interns.	City civilian employees staff Operation Identification project; SCAT project separate unit in department.	Crime Prevention Unit responsible for burglary prevention activities.	Department and Insurance industry maintain Crime T.R.A.P.; Specific Burglary Crime Attack Team; Burglary Specific Crime Impact Program.
Funding Sources	Department and Grant.	Department and Grant.	Grant	Department and Grant.	Department-Crime T.R.A.P., Grant-other.
Outside Resources	Civic organizations and local businesses.	Civic organizations and local businesses.	—	Civic organizations and local businesses.	Insurance Institute of Indiana, Women;s Crusade Against Crime.
PROGRAM COMPONENTS					
Property Marking	Property Marking	Property Marking	Property Marking	Property Marking	Property Marking
Premises Surveys: Residential Commercial	Commercial Survey	Residential Surveys	Residential Surveys Commercial Surveys	Residential Surveys Commercial Surveys	
Community Education	Community Education	Community Education	Community Education	Community Education	
Alarms		Alarms			
Special Patrols	Special Patrols	Special Patrols	Special Patrols		Special Patrols
Anti-Fencing		Anti-Fencing			Anti-Fencing
Other		Crime Pattern and Vulnerability Analysis		Crime Pattern and Vulnerability Analysis	

TABLE 5: Overview of Selected Police Burglary Prevention Programs (Continued)

	St. Louis, Missouri	St. Paul, Minnesota	San Bernardino, California	San Jose, California	Topeka, Kansas
CITY AND POLICE DEPARTMENT CHARACTERISTICS					
Population (1970)	622,000	309,980	104,000	446,000	125,011
UCR Reported Burglaries per 1,000 population (1973)	30.59	23.64	28.56	20.56	14.88
Number of sworn officers in Department	2,218	543	205	654	208
Number of Civilians in Department	653	134	50	136	73
BURGLARY PREVENTION PROGRAM					
Concept of Program	Expanded community services and special operations.	Began as locally initiated expansion of community services. Now part of statewide crime prevention outside evaluation.	Short feasibility study of locally generated ideas with state-wide outside evaluation.	Experiment in target area to determine effectiveness of techniques.	Expanded community services.
Organization	Burglary Prevention Unit.	Crime Prevention Unit responsible for burglary prevention.	Crime Specific Burglary Unit staff supplemented with reserve officers.	Burglary prevention activities integrated within department; augmented with part-time civilian help.	Crime Prevention Bureau, Strike Force Against Street Crime including anti-fencing work.
Funding Sources	Grant	Department and Grant.	Grant	Department and Grant.	Department and Grant.
Outside Resources	Local businesses; Women's Crusade Against Crime.	Insurance Industry; Local Businesses.	Local businesses.		Civic organizations and local businesses; Topekans Against Crime.
PROGRAM COMPONENTS					
Property Marking	Property Marking	Property Marking	Property Marking	Property Marking	Property Marking
Premises Surveys: Residential		Residential Surveys	Residential Surveys	Residential Surveys	Residential Surveys
Commercial	Commercial Surveys	Commercial Surveys	Commercial Surveys	Commercial Surveys	Commercial Surveys
Community Education	Community Education	Community Education		Community Education	Community Education
Alarms	Alarms		Alarms		
Special Patrols			Special Patrol		
Anti-Fencing			Anti-Fencing	Anti-Fencing	Anti-Fencing
Other				Neighborhood Watch, Crime Pattern and Vulnerability Analysis	

CHAPTER IV. CRIME PATTERN VULNERABILITY ANALYSIS AND PROJECT EVALUATION

A. Purpose

Little solid proof exists that specific programs reduce burglary rates. Moreover, programs and conditions vary so greatly that generalized conclusions are risky. For these reasons, it is essential that local burglary prevention programs include a planning and evaluation component. With such a tool, police can determine where best to direct their efforts and whether they are producing results.

Planning should include crime pattern and vulnerability analysis to provide information for assistance in allocating resources. Crime pattern analysis is based largely on burglary reports. Vulnerability analysis is based on the number and characteristics of all potential burglary sites and attempts to estimate the likelihood of burglary by site.[1]

Uses for crime pattern and vulnerability analysis go far beyond manpower deployment. Many other preventive and corrective steps are possible once results from an analysis are available. Among them:

- New laws and/or ordinances can be proposed to the local government;
- Security protection incentives can be proposed to the insurance industry, for example, see St. Paul, Minnesota's plan, page 20;
- Intensive education can be directed to high risk neighborhoods and individuals;
- Lighting can be selectively improved; and
- New buildings can be designed for crime prevention, for example, see report by Oscar Newman listed in bibliography.

B. Crime Pattern and Vulnerability Analysis

Any burglary prevention effort should be designed to counter a well quantified threat. A few examples will illustrate the basic points.

In Chula Vista, California, a crime pattern analysis showed that one quarter of the residential burglaries involved a garage. Vulnerability assessment consists of officers on patrol periodically checking out houses looking for unlocked, unattended garages, and tagging items likely to be stolen with yellow slips of paper saying. "This property could be stolen" and the name and telephone number of the police department. If the resident later calls, the police will recommend burglary prevention measures. Improvements might begin with estimates from the garage checks of what fraction are unlocked and unattended and contain valuable items likely to be stolen. Then one could estimate how often the vulnerable garages were burglarized and how much police effort would be required to check out all of the vulnerable garages.

The experience of Arlington, Virginia, with a deadbolt lock ordinance, provides another example. A crime pattern analysis showed that 45 percent of residential burglaries in 1973 involved apartments. A December 1971 ordinance required all apartments to have deadbolt locks on all apartment doors. By February 1973 only 31 percent of the apartment complexes were not in full compliance and by the end of 1973 only 2 percent were not in compliance. Data are not available on the rate at which deadbolt locks were installed. Assuming installation of the deadbolt locks immediately following the enactment of the ordinance, it appears that a decrease in reported burglaries could have been linked to the ordinance. Apartments continue to be much less vulnerable to burglary than houses; in 1973, 0.8 percent of apartments were "burgled" as compared to 1.6 percent of the houses.[2]

Examples of very extensive analyses of crime patterns and vulnerability include extensive research studies as well as ongoing, computer based systems. In some cases the information presented in these studies may help a department better understand the characteristics of burglary and plan

[1]Several crime analysis system models have been developed in LEAA's Prescriptive Package entitled "Police Crime Analysis Unit Handbook." (Washington, D.C.; Government Printing Office, stock number 2700-00232, $1.75)

[2]Further discussion of Arlington's program is on page 20.

their own program. However, in other cases there will be a need for data on the problem as it exists in the jurisdiction of the department.

1. *Examples of Crime Pattern Studies.* In *Patterns of Burglary*,[3] Scarr presents data from burglary research done in Fairfax County, Virginia; Prince George's County, Maryland; and Washington, D.C. He covers the following topics:

- The nature of the offender.
- The patterning of the offense.
- The correlates of the offense.
- The victim of the offense.
- Residential burglaries vs. non-residential burglaries.
- Victims of residential burglaries vs. non-victims of residential burglaries.
- Victims of non-residential burglaries vs. non-victims of non-residential burglaries.

Scarr discusses each topic, reporting the characteristics of each based on his research and includes an extensive, annotated bibliography on burglary covering the literature through 1970.

In *Residential Crime*,[4] Reppetto analyzes data on residential burglary and robbery in the Boston area obtained from crime reports "and personal interviews with 97 adjudicated burglars."[5] Almost half of the burglars were drug users (49 out of 97 interviewed) and about 70 percent were under 25 years old. Drug users made an average of five to six "hits" per week as compared to one to two for non-drug users.

2. *Use of Computers in Vulnerability Analysis.* An elaborate, operational, computer-based system called Police Response Early Warning System (PREWARNS) was developed in 1972 in University City, a suburb of St. Louis, Missouri.[6] PREWARNS focuses on the relationship between the community and crime, the police and crime, and the police and the community. Crime data are measured and correlated with demographic data and other information not commonly kept by police departments. A map is printed that displays locations of crimes for any time period.

A key element of PREWARNS is the relationship it fosters between the police and other local agencies. As a preventive measure, PREWARNS identifies problems not within police responsibility and therefore relies on social service agencies and schools in assisting with crime deterrence activities.

Another computer based system is CAPER,[7] a crime analysis methodology developed as part of the Santa Clara, California, Criminal Justice Pilot Program in 1971 by the American Justice Institute. The four major functions of CAPER are:

- To provide "baseline" or benchmark data to serve as a reference guide;
- To provide specific, detailed information about reported crimes;
- To provide data for project evaluation; and
- To provide research data for assessing community factors related to crime.

The purpose of CAPER is to provide police agencies with a crime analysis system that can be adapted to local needs and help in developing crime control methods.

C. Project Evaluation

Evaluation frequently is lacking in burglary prevention projects. But since the evaluative results that are available indicate a striking mix of success and failure in reducing burglary rates, no program should be called successful without evaluation of hard data. Evaluation should be an integral part of every program since the risk of failure is high and frequent modifications are likely to be required.

In many cases evaluation can be very simple and can use data readily obtainable. The single most useful evaluative tool is a *plot of reported burglaries over time*. Too often, claims of reductions are based on a very small sample, such as comparisons between two consecutive quarters. By plotting a longer history one can *visually* check whether the start of a new burglary prevention effort was accompanied by a change in the burglary rate. And if

[3]Harry A. Scarr with Joan L. Pinsky and Deborah S. Wyatt, *Patterns of Burglary*, 1973, p. 103. (Available from the Government Printing Office, Washington, D.C. 20402; stock number 2700-00207, $3.45.)

[4]Thomas A. Reppetto. *Residential Crime*, Ballinger, Cambridge, Mass., 1974. A much more extensive display of data is contained in an earlier draft by Urban Research and Engineering, Inc.,1218 Massachusetts Avenue, Cambridge, Mass., entitled "Crime and Housing in a Metropolitan Area: A Study of the Patterns of Residential Crime," January 1973.

[5]*Ibid.*, p. 12.

[6]Working documents produced by PREWARNS are available only within the University City, Missouri, Police Department. A description of PREWARNS can be found in *Police Chief*, August 1973, pp. 24-27.

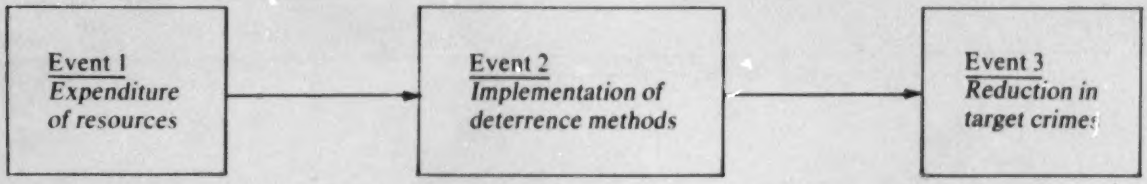
[7]*CAPER*: Crime Analysis Project Evaluation Research, National Technical Information Service, U.S. Department of Commerce, Washington, D.C.

a project initially reduces burglary, then keeping the plot up-to-date will show at a glance whether the trend persists.

1. *Measures of Burglary Prevention Program Implementation.* One example of a monitoring and evaluation system is the Ohio Evaluation Instruments,[8] some of which could be used for a burglary prevention project. The instruments give specific questions to be answered and specific measures on which to provide data. They implicitly dictate a particular type of project description for monitoring purposes. This is demonstrated by the instructions accompanying the questionnaire for crime deterrence projects:

> Projects to be covered by this questionnaire include all those which seek to deter the committing of certain crimes by increasing the risk or threat of apprehension and prosecution to the potential offender as opposed to reducing the causes of criminal behavior. Such projects may educate the public in methods of marking their property for easier recovery or protecting their persons or their homes with alarm devices. Also included would be efforts to intensify patrolling, either by sworn police, auxiliaries, or citizen volunteers, and to facilitate access to peace forces by citizenry by the use of 911 emergency telephone lines.
>
> Although we lack a proven methodology for relating these deterrent methods directly to the crime rate, the underlying assumption is that if the risk of apprehension and prosecution rises, crime should go down. Thus this instrument seeks to compare the number of crimes before and during the application of certain deterrent measures. Since our crime detection and reporting techniques are often far from perfect, one possible follow-up to projects of this type would be an evaluation of the detection-and-reporting apparatus in the jurisdiction which ran the project.

For these projects, the assumed model is, in its simplest form; as shown in the following sketch.



It is assumed that the projects and data collection procedures can be designed to provide information for monitoring each event. Measures of crime activity are to be used in monitoring. The police department would specify the "crime(s) to be deterred" and set goals in terms "of the sum total of the crime(s) made known to police during a particular quarter." The department then would use a standard form showing the number of reported crimes and baseline data on the number of crimes in previous quarters.

Specific measures to be used to monitor and evaluate "the implementation of deterrent activities" (Event 2) are:

- *Public Education:* the approximate number of people reached in the community by methods used to inform them of techniques to deter crime. Methods for public education might include, for example, lectures, movies, mass media spots, pamphlets, posters, etc.
- *Intensified Police Patrol:* the number of additional manhours provided to the target community or area by the police agency for intensified police patrol.
- *Auxiliary Police/Citizen Patrol:* the number of manhours provided to the target community or area by volunteer personnel such as off-duty officers or civilians trained by the police agency for this purpose.
- *Surveillance Equipment:* the percentage of the target community or area covered by surveillance equipment used to deter criminals.
- *Protection Equipment:* the percentage of the target community or area covered by equipment, such as locks, safes, lights, etc, used to protect persons or property.
- *Hot Line/Alarm Systems:* the percentage of the target community or area covered by communication systems primarily used to alert local law enforcement officials of possible

[8]Developed by the Administration of Justice Division, Department of Economic and Community Development, Box 1001, Columbus, Ohio 43216; telephone (613) 466-7610.

criminal acts with the intent of deterring rather than apprehending the perpetrators. Examples would include "911" emergency telephone service and high crime area alarm systems.

As with the crime reduction measures, quarterly goals are to be set and actual achievement reported by quarter.

2. *Selected Output Measures and Their Uses.* Ultimately the cost of a burglary prevention program must be weighed against the potential benefits (Event 3), which are measured in terms of changes in:

- The number of reported burglaries (provided that the percentage of burglaries reported is not changing).
- The value and types of property stolen or damaged.
- The number of burglaries for which no suspect is apprehended.
- The number of apprehensions resulting in conviction and incarceration.
- The fear of burglary and other related crimes.
- The recovery of stolen property.

Reported burglaries should be adjusted with respect to large changes in the total population, its mix, and the type and number of structures or units. Burglary rates have been shown to be positively related to socioeconomic conditions associated with poverty, such as:

- Overcrowded households.
- Low annual income.
- Large fraction of adult population with few years of education.
- Low value of living units.
- Low fraction of owner-occupied dwellings.
- Large fraction of juveniles and young adults in the population.[9]

The risk to the burglar can be measured by the average number of burglaries committed before the burglar is apprehended. This can be approximated by dividing the number of reported burglaries by the number of persons arrested for burglary. Nationally, this averages about six burglaries per person arrested. Since only half the burglaries are reported, and since there is at least one burglar per burglary, the burglar can commit at least an average of 12 crimes before being arrested.

Since the linkage between a burglary prevention effort and an actual reduction in burglary may involve more than one step, we recommend that the intermediate links be checked. Potential techniques for performing such checks are indicated in the following sections.

a. *Property marking.* A property marking program might be checked periodically by counting the engravers available.

If police personnel or others are going door-to-door, then the first check should be the number of households or establishments in which items were engraved. This number frequently is not known but is very important in view of widespread citizen apathy. In addition, initial coverage can be "lost" as families or firms move in and out or bring in new items of property. From records kept on participants, one could count the sites where engraving was done more than five years ago as an estimate of how much coverage has been "lost."

The extent of engraving at participating sites can be checked by counting the percentage and type of both engraved and non-engraved items at burglarized sites.

From records on participants, relative burglary rates can be computed, namely:

- Burglaries per "engraved" sites.
- Burglaries per "not engraved" sites.

"Engraved" sites usually have a much lower rate, and this is often cited as proof of success. However, there is reason to believe that the burglary rate in sites before "engraving" could be about the same as the rate in the same sites after "engraving." This question could be resolved by using past burglary reports and records on participants to compare:

- Burglaries recorded per "engraved" site before engraving.
- Burglaries recorded per "engraved" site after engraving.

b. *Premise security surveys:* Premise security surveys can be evaluated in much the same way as property marking programs. The first piece of data is the number of sites surveyed, which will be available if records are maintained on which sites were

[9]Harry A. Scarr, *Patterns of Burglary*, Washington, D.C.: U.S. Government Printing Office, 1973.

surveyed and what violations were noted. Frequently little is known about how many deficiencies noted in a security survey are corrected. Thus, one can compare burglary rates in sites after survey; burglary rates in sites before survey, and burglary rates in sites without a survey to see if burglary rates drop following premises security surveys.

If surveys have had no notable impact, one can find out why by examining burglaries in surveyed sites and noting:

- The number of surveyed sites where a burglar took advantage of an uncorrected deficiency.
- The number of surveyed sites where a burglar was not deterred by corrections made or where deficiencies noted were not a factor in the burglary.

c. *Community education.* Community education efforts usually have diverse objectives that cannot be measured simply by comparing burglary rates.

Since most burglaries are reported by victims (typically only about one in 10 is reported by others), an increase in citizen concern for their neighbors can be measured by:

- Percentage of burglaries reported by other than the victim.
- Percentage of burglaries reported "in-progress."

Concern for a citizen's own property can be measured by comparisons using:

- Percentage of no-force entry burglaries.
- Percentage of attempted forced burglaries in which entry was not gained.

However, unless a large proportion of the citizens have been exposed to community education, its effects may be too small to detect.

d. *Special patrol.* The impact of "special patrol" tactics can be measured by:

- Number of suspects apprehended.
- Number of burglaries detected.
- Drop in number of burglaries attempted.

Other measures depend on the tactic employed. For example, patrol to reduce daytime burglary by keeping truants off the streets during school hours has been evaluated by counting:

- Number of truants apprehended.
- Daytime burglary rates in patrolled areas.

e. *Alarms.* Alarms have traditionally been evaluated by the false alarm rate and the police manhours lost answering false alarms. The authors suggest an alternative measure: burglar arrests per man-hour spent answering all alarms (false and real). This measure should be compared with burglar arrests per manhour investigating all burglaries. Rough preliminary estimates using this measure show that high false alarm rates make alarms a very inefficient method of using police manpower for producing arrests. Several comparisons illustrate the point.

- *Investigations leading to arrest:* FBI data for 1973 indicate there were 1,210 reported burglaries and 204 burglars arrests per 100,000 population, or six reported burglaries per arrest. We can assume that at least one to two manhours were spent investigating each case, resulting in one arrest for each six to 12 manhours.
- *Real alarms leading to arrests:* assuming that about one in four real alarms (on a silent system) leads to an arrest, we can assume that one-half to one man-hour is spent on each real alarm, resulting in one arrest per two to four man-hours—a highly favorable rate.
- *All alarms leading to arrests:* However, about 98 percent of all alarms are false and lead to no arrests. Thus the overall rate is about one arrest per 200 alarms. If we again assume that each alarm requires one-half to one man-hour, the resulting rate is one arrest per 100 to 200 man-hours.

Therefore, based on plausible assumptions, arrests resulting from alarms require more than 10 times as many man-hours as other methods of achieving arrests.

Other measures used for evaluating alarm systems include:

- Percentage of burglaries in alarmed sites that are detected by the alarm system.
- Percentage of burglaries in alarmed sites for which the alarm did not operate or was defeated.

Data from California[10] indicate that about one-half of the burglaries of alarmed sites were not detected by the alarm because the burglars defeated the alarm or it did not operate (in about equal numbers).

f. *Security ordinances*. A suggested measure for impact of security ordinances is a comparison between:

- Number of burglaries where a violation of the ordinance contributed to the burglar's success.
- Number of burglaries where there was compliance with the ordinance.

The first measure above indicates the burglaries that could have been prevented had there been compliance, while the second indicates whether the ordinance misses deficiencies that contribute to burglary.

g. *Anti-fencing operations*. Anti-fencing operations are the most likely to extend beyond the jurisdiction of one police department, and the benefits are likely to be widespread and very difficult to measure. However, the impact can be credibly measured by:

- Arrests of fencing suspects.
- Convictions of suspects.
- The prices offered by fences for stolen goods.
- Refusals by suspected or former fences to handle stolen property.

3. *Estimating aggregate deterrence and apprehension effects*. Burglary prevention programs should not only raise the probability of apprehending a burglar, but should deter people from becoming burglars or continuing as burglars. An overview of apprehension and deterrence is given in Figure 2, which shows the major flows away from a potential burglary.

In many cases there is no direct record of a burglary being deterred, while apprehension flows are well documented. To evaluate the deterrence effect of a program, the direct effect of apprehension and incarceration should be computed and factored out of changes in burglary rates so that the remaining effect can be attributed to:

- Deterrence.
- Change in population.
- Error.

A simple approach to estimate the deterrent effect from data that should be either available or not difficult to collect is presented in Appendix E. Under conditions that are estimated to be typical in this country, the approach developed in Appendix E indicates that at any given time 30 percent of burglars are incarcerated and all burglaries are due to the remaining 70 percent of burglars at large.

[10]See *Crime-Specific Burglary Prevention Handbook*, p. 147, May 1974; State of California, Office of Criminal Justice Planning, 7171 Bowling Drive, Sacramento, California 95823.

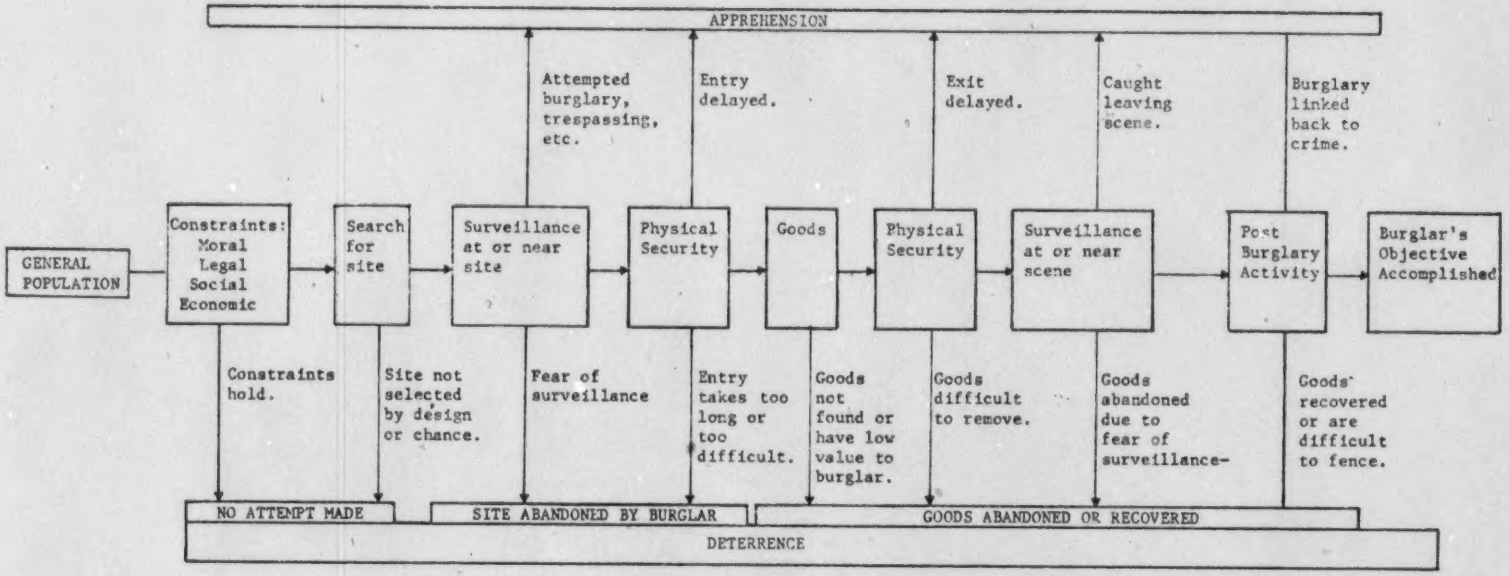


Figure 2: Overview of Apprehension and Deterrence

CHAPTER V. COMMUNITY EDUCATION

A. Purpose

When police are asked what obstacles they face in fighting crime, they frequently mention the apathetic citizen. Police abhor citizen apathy, not only because it helps the criminal but because it implies little faith in the ability of police to prevent crime.[1]

Community education[2] tries to combat such apathy by making citizens aware of the crime threat and of ways they can protect themselves and their community. It also helps make the public aware of the value of the police and thereby reinforces the police-citizen cooperation necessary to combat crime effectively.

B. Scope

Community education is one of the oldest police community services. It covers a variety of activities, including lectures to civic organizations and citizen groups, crime prevention displays, slide shows and movie presentations, distribution of crime prevention materials, and television and radio programs and announcements.

C. Community Education Options

A number of operational and program decisions must be made concerning community education. Operational questions include:

- Whether to hire additional staff or use existing department personnel.
- Whether to use only officers from a crime prevention bureau or similar unit or use officers willing to work overtime on a rotating basis.
- Whether to solicit opportunities to lecture or set up displays, or to do so on request only.
- Whether to use crime prevention literature with the name of business sponsors on it, or to use literature with only the police name on it.
- What type of promotion to use (e.g., radio, television, newspapers).
- How to develop educational material (e.g., in-house, by advertising agency, etc.).
- What role citizen groups should have and how extensive it should be.

The major program considerations are more concerned with the content and focus of the effort. For example, the National Sheriff's Association has implemented a Neighborhood Watch Program,[3] a coordinated attack on burglaries and larcenies. Through Neighborhood Watch, citizens learn how to make their homes, families and property less vulnerable to crime and their neighborhood and city safer for themselves and less attractive to criminals.

The Neighborhood Watch in St. Paul, Minnesota, was organized when city officials began sensing that citizens were concentrating on their own home security and ignoring the need for neighborhood cooperation. The program began in early 1974 when, after a half-hour training session, 50 Marine reservists went through a section of the city, calling on homes and inviting people to participate. The reservists gave participants a "Neighborhood Crime Watch" decal for their door or window and a vinyl guide to keep near their phone or in another convenient location. On one side of the guide is a three-year calendar. The other side lists crime prevention steps that citizens can take, unusual activities to look out for, and phone numbers to call when crimes are observed or suspected. The calendars cost only 12 cents each, and 30,000 were provided by a local financial institution at a cost of $3,600.

A somewhat different approach has been taken in establishing the San Jose, California, Neighborhood Watch Program, which is geared to a

[1]Personal correspondence with Jerry V. Wilson, former Chief of Police, Washington, D.C.

[2]Although this book deals specifically with burglary prevention, this chapter addresses crime prevention education in general, since distinctions are in content rather than in methods.

[3]Information is available from Ron Brenner, Neighborhood Watch Program Director, National Sheriff's Association, 1250 Connecticut Avenue, Suite 320, Washington, D.C. 20036.

sub-group of citizens in a target area where an intensive burglary prevention program is underway. A crime prevention staff officer first examined the neighborhood (891 residences) and drew up maps of 30 Neighborhood Watch groups. College students then went door-to-door, carrying burglary prevention brochures and a letter explaining the program, and asked residents to add their names and phone numbers to the map of their street. Once the map was completed, copies were returned to all participating residents. The homeowners were encouraged to contact their neighbors and arrange a meeting at which a crime prevention officer could brief the group on Neighborhood Watch and other burglary prevention methods.

Some police departments use crime prevention vans in community education. In Huntington, West Virginia; Topeka, Kansas; and Norfolk, Virginia, vans visit at shopping centers, schools, and the like. The vans—which display security and alarm systems and photographs showing how and where burglars can enter a premise—enable officers to demonstrate effective versus ineffective crime prevention techniques and help maintain good public relations. In Topeka, the two-man Crime Prevention Bureau staff got a used bread truck for $500, completely renovated it, built display shelves, installed an audio visual area and turned it into a custom-designed crime prevention van.

Minnesota has a statewide crime prevention effort, and community education is a major part of it.[4] Participating departments receive materials on specific crime prevention projects such as Operation Identification as well as a training manual that covers home burglary, commercial security, promotional ideas, presentation, and press information. Copies for public distribution can be ordered from the Governor's Commission on Crime Prevention and Control.

When a serious crime occurs in Topeka, Kansas, a newsletter from the police chief is sent to all residents within a four block radius of the scene. The exact nature and location of the crime are not revealed, but brochures on personal and property protection are enclosed for citizens to read.

The American Association of Retired Persons/National Retired Teachers Association has developed a crime prevention program that includes information particularly appropriate for senior citizens. The material is presented in a handbook that can serve as a guide for meetings on community crime prevention.[5]

In Virginia, a group called the Committee on Crime Prevention and Expiation[6] is actively engaged in community education. The members are inmates of a correctional unit who want to share their knowledge with homeowners and business owners. The men have written skits and a pamphlet on burglary prevention which they present at civic and church group meetings.

Films are an important part of community education. They have been found useful by police in alerting the public to specific crime problems and raising questions people might otherwise not have asked. One problem with films is their high cost, but that could be reduced if there were a coordinated regional or national program of distribution.[7]

D. Advocacy Aspects of Community Education

An additional important facet of community education is advocacy—police and citizen efforts aimed at large scale adoption of crime prevention ideals through group and legal action.

Through advocacy efforts in Arlington, Virginia, a deadbolt lock security ordinance for apartments was adopted.[8] Oakland, California, has one of the earliest security ordinances.[9] In St. Paul, Minnesota, advocacy efforts by a sergeant on the Crime Prevention Unit staff prompted the Mutual Service Insurance Company to grant all Operation Identification enrollees a 5 percent discount on the burglary premium on homeowners insurance. The company has its agents explain the program to customers, and the police department in turn verifies whether customers actually enroll.

In Topeka, Kansas, the lieutenant in charge of the Crime Prevention Unit is working with the local business inspector to enact a security ordinance

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[4]See Appendix B for a discussion of Minnesota Crime Watch.

[5]Available from AARP/NRTA, 1909 K Street, N.W., Washington, D.C. 20006.

[6]Committee on Crime Prevention and Expiation, P. O. Box 126, Chesterfield, Virginia 23832.

[7]The average cost for one 30-minute crime prevention film is $200—a cost too high to permit many departments to buy one film, much less build up a useful film library. The cost per print can be at least cut in half if large numbers of prints (i.e., lots of 100) are made for widespread distribution.

[8]See page 25 for a discussion of the Arlington security ordinance.

[9]See Appendix C for a copy of Oakland's ordinance.

requiring certain types of locks, alarms, and window and door security on all businesses. The lieutenant also says architects come to him for recommendations about security for buildings they design—including not just structural security but such factors as lighting placement and landscaping techniques.

Such interaction between the police and architects is part of the broad concept of crime prevention through environmental design and effective use of physical space. This approach is aimed at preventing crimes of opportunity, fostering an increased sense of social control of environments, and supporting those law enforcement activities designed to improve detection and crime reporting.[10]

[10]LEAA National Criminal Justice Reference Service definition.

Advocacy efforts could also be useful in regulating sale of second hand goods, regulating use of burglar alarms (i.e., whether they can be directly connected to the police department), and establishing residential and commercial security standards.

E. Impact

The success of community education has not been quantified. Obviously, however, one payoff is increased public familiarity with crime problems and, hopefully, a decrease in citizen apathy. In addition, lectures often prompt requests for premise surveys, property marking services, and more lectures. However, police administrators must be prepared for an apparent or "paper" increase in crime rates as an intensified public education campaign prompts more citizens to report crimes than do so today.

CHAPTER VI. PREMISE SECURITY SURVEYS

A. Purpose

The purpose of premise security surveys, whether for a commercial establishment or a residence, is to reduce criminal opportunity.

> A security survey is a critical on-site examination and analysis of an industrial plant, business, home, public, or private institution to ascertain the present security status, to identify deficiencies or excesses, to determine the protection needed, and to make recommendations to improve the overall security.[1]

For homes or apartments, security recommendations range from the "free" things a citizen can do (such as leaving lights on when going out for the evening to give the impression that the premise is occupied) to installation of hardware (such as deadbolt locks on doors). For commercial establishments, security recommendations usually pertain to hardware (such as locks, alarms) and keeping windows clear of display and signs so that intruders are visible to police and passersby.[2]

Whatever the recommendations, they must meet local residential or commercial security ordinances or codes. Such codes range from simple ones requiring deadbolt locks on apartment doors to more complex ones specifying security requirements for all openings in a building. Local security legislation is discussed later in this chapter.

B. Planning and Implementation

A number of decisions must be made before premise security surveys are undertaken. Among them:

- Use of officers or civilians?
- Residential and/or business premises?
- Citywide or target areas only; all premises or vulnerable ones only?
- Type of survey form and record keeping?
- Police initiated or citizen requested?

1. *Officers or civilians?* There is strong disagreement about who should conduct premise surveys. Some police officials say only regular police or reserve officers should be empowered to inspect a citizen's home or store. In addition, some feel that having uniformed officers conduct the surveys helps community relations. Others feel that, given the shortage of police manpower, civilians are best for the job or that reserve officers or civilians can conduct the surveys less expensively than can regular police officers. When civilians are used, some departments have found that female college students are best, because the cost is low and residents rarely refuse to let them into their homes. When reserve officers are used, some departments have found that a male-female team is best—particularly because women alone might not let a lone man enter their homes.

2. *Residential or business?* This decision will be based largely on the comparative severity of residential and commercial burglary and the availability of manpower. But another major consideration could be the expected rate of occupant compliance with the resulting security recommendations. However, a definition of "compliance" must be reached and uniformly used for such a choice to be valid. Still another approach is to survey premises —business and residential—only after a burglary.

If residential surveys are to be conducted, police may want to provide property marking services at the same time. Some departments feel that, since police employees are going out to the homes to conduct premise surveys anway, they have an opportunity to enroll citizens in Operation Identification at the same time and further reduce their chance of being burglarized. In a San Jose, California target area, residential security surveys are conducted in homes of burglary victims and nonvictims in conjunction with Operation Identification. To initiate the project, survey invitations and

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[1] Momboisse, Raymond M. *Industrial Security for Strikes, Riots and Disasters* (Springfield, Illinois, Charles C. Thomas, Publisher, 1968), page 13.

[2] For a thorough discussion of commercial and residential premise surveys see Arthur A. Kingsbury. *Introduction to Security and Crime Prevention Surveys*, Charles C. Thomas, Publisher, Springfield, Illinois, 1973.

return postcards were sent to a random sample of burglary victims. The initial response rate in different areas ranged from 4 to 31 percent; after a follow-up of non-respondents, interest rate ranged from 12 to 57 percent. College students, trained by the police, would go to a home, administer a seven page questionnaire on home security, conduct a brief security check, and engrave identifying numbers on articles the citizens wished to have marked. Interviewers also watched for nearby homes with characteristics similar to the burglarized home. Police later called those residents to offer a security survey, and students were sent to the homes of those interested.

3. *Citywide or target area? which premises?* The decision about whether to provide premises surveys throughout a city or in target areas only will depend largely on resources available. Departments often concentrate first on the most vulnerable premises, whether commercial or residential. One problem, however, is how to define "vulnerability"—how to determine which security deficiencies are really crucial. Another problem is crime displacement. Crime patterns in adjacent precincts or districts must be examined closely to observe whether there is displacement from one area to another and, indeed, from burglary to some other type of crime.

4. *Survey form and record keeping.* The amount and detail of information collected during a premise survey varies greatly. Typically, a residential survey checks points of access and offers tips on what to do when going away and other crime prevention information. For a business, the task may be much more complex, including information about safes, alarms, transfer of cash, premise characteristics, specific deficiencies, and recommendations for improvements.[3]

Records of surveys are kept to: (1) maintain accurate, up-to-date information on surveyed premises, (2) have a standard reference for compliance checks, and (3) estimate the time, cost and effectiveness of surveys.

5. *Citizen request or police-initiated?* Once again, costs and manpower are major considerations. A door-to-door effort, by police officers or civilians, usually will result in more people (business owners and residents alike) receiving security surveys. The door-to-door effort also allows the police to determine priorities for conducting such surveys.[4]

An example of an intensive door-to-door premise survey effort is found in Chula Vista, California, where student interns offer home security checks and property marking services. For about a week, two interns concentrate on an area of about 100 houses. Residents can have an immediate home security check or make an appointment for later. The interns—fourth year college students majoring in subjects appropriate to police work—have name tags and identification cards. They wear civilian attire, but carry radios and drive marked police cars with "out of service" signs. They are well trained to answer questions about home security.

Over a quarter of Chula Vista's residential burglaries are of garages and, as described earlier, police use special tactics to combat them. An officer on patrol parks in front of a house and knocks on the door. If no one answers and the garage door is open, he walks into the garage and puts yellow slips saying "This property could be stolen" on any items that could tempt a thief. The slips also say "Chula Vista Police Department" followed by a telephone number. Response is described as good. When contacted, the department recommends counter measures such as locking the garage and installing an electronic garage door opener rather than a low cost burglar alarm.

In Huntington, West Virginia, premise surveys are conducted for businesses upon request of the owner or manager. The survey program originally was promoted on television and in newspapers, but today the best advertisement is thought to be officers on their beat who can look for security deficiencies and urge people to have a survey. Both minimum and maximum security recommendations are provided and business owners are advised to contact local alarm companies for bids on security system installation. Once the system is installed, the businesses are revisited to see how they have complied with suggestions, whether the system is working and whether the owners are satisfied. The checks revealed that 75 of the 146 businesses surveyed had complied with police recommendations. Between 1968 and 1971, police apprehended burglars in five businesses where alarms had been recommended.

When police noted that residential burglaries in Huntington were on the rise between 1969 and 1971,

[3] Examples of premise security surveys can be found in Arthur A. Kingsbury, *Introduction to Security and Crime Prevention Surveys*, Charles Thomas, Publisher, Springfield, Illinois, 1973.

[4] In Topeka and San Jose, forms were distributed and citizens were asked to return them indicating their interest in a home or business security survey.

they decided to extend their security survey activities to residences. These surveys are done almost exclusively on request of the citizen, although the police initiate a few home visits.

C. Premise Survey Impact

There are seven basic measures for evaluating effectiveness of premise surveys. They are:

- The cost to the department.
- The number of households/businesses surveyed.
- The number of households/businesses that needed improvement and were improved.
- The burglary rate among surveyed and non-surveyed premises
- The total burglary rate.
- The number of improvements (target hardening measures) subsequently defeated.
- Data on displacement (both geographical and type of crime).

Evaluative data based on these measures are generally not available. But other kinds of information—based on anecdotes and subjective impressions, for example—are valid components of evaluation. Such information includes:

- Reports from citizens and business owners of burglary failures due to secondary security improvements made after a survey.
- Residents calling the police to be re-surveyed after their home has been remodeled and security conditions have changed.

D. Security Ordinances and Codes

The first ordinance requiring specific security measures for commercial establishments was enacted in Oakland, California, in 1964.[5] This followed a police department anti-burglary study concluding that commercial establishments should be the primary targets because strict security requirements for residences would be difficult to enforce.[6] The Oakland ordinance requires security devices in most commercial establishments. There are specific requirements for front, overhead, side, rear and roof doors, and side, front, and rear windows near the ground. Photoelectric, ultrasonic, or other detection devices may be required, dpending on the past incidence of burglary and/or type and value of merchandise.

Enforcement of the ordinance has been mostly on a voluntary basis. The only evaluative information available (short of individual crime reports) is the number of commercial and residential burglaries by year. This shows that commercial burglaries continued to rise on the average of 14 percent a year for four years after the ordinance was passed. (Since 1969, the number of residential burglaries has been decreasing on an average of 7 percent per year.)

Arlington County, Virginia, amended the County Code in December 1971 to require deadbolt locks for apartments and special latches for sliding glass doors and windows below the second story.[7] A police study in the first six months of 1973 showed that apartment burglaries dropped after the code was established. However, the data also indicated that house burglaries increased during the same period. No evaluation of apartment burglaries has been conducted, so a direct association between the ordinance and the overall rate of apartment burglaries cannot be examined. Figure 3 shows the apartment burglary rate in Arlington County from 1971 up to the recent increases in 1974.

Several factors must be considered in adopting a security code or ordinance.[8] The first step is to determine what types of premises are to be affected, i.e., commercial establishments, private homes, multiple family dwellings. Conflicts with fire prevention regulations and insurance policies must be resolved. Decisions must be made on how often compliance checks are to be made, who will make them and what fines or other penalties will be imposed.

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[5] The Oakland ordinance, is presented in Appendix C. The Los Angeles security ordinance is presented in Appendix D.

[6] J. Kinney O'Rourke. *The Need for and Projected Contents of a Suggested Property Security Code*, submitted to the President's Commission on Law Enforcement and Administration of Justice, 1967, page 7.

[7] Landlords were given one year to install the devices.

[8] Koepsell-Girard and Associates, Inc., have prepared two model ordinance publications for the Texas Municipal League. *Model Security Provisions for Texas Local Governments: An Explanatory Handbook and Recommended Ordinance* and *Model Alarm Ordinance for Texas Local Governments: A Discussion and Recommended Ordinance*, are available from Texas Municipal League; 1020 S. W. Tower, Austin, Texas.

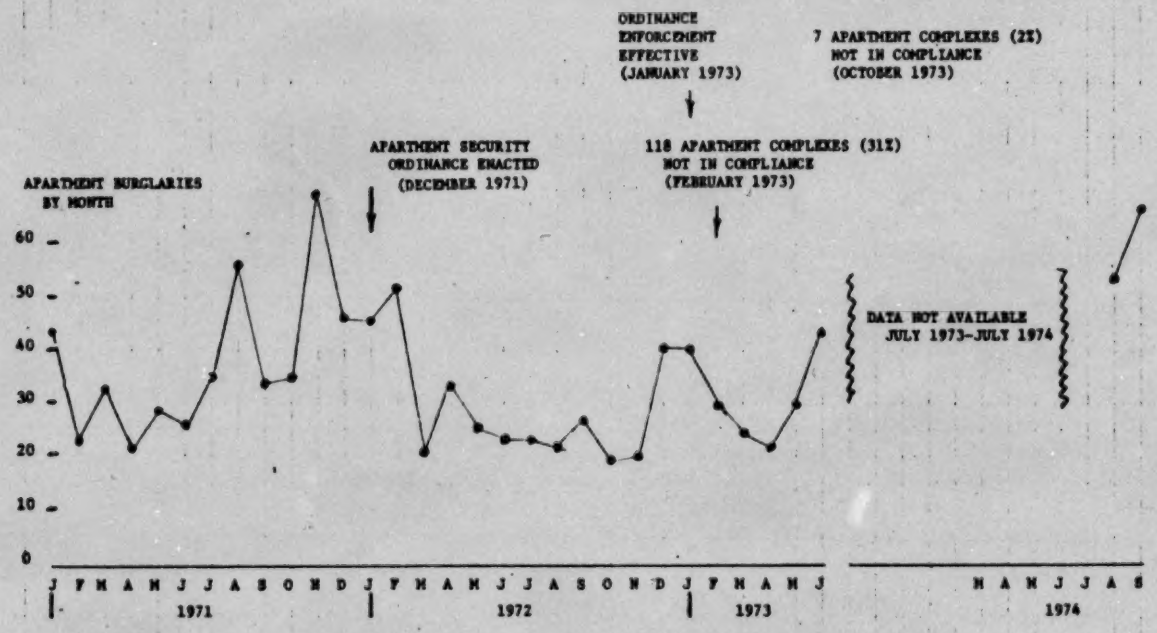

FIGURE 3: APARTMENT BURGLARY IN ARLINGTON, VIRGINIA

FIGURE 3: Apartment burglary in Arlington, Virginia

The Research Division of the International Association of Chiefs of Police[9] has written a model security ordinance for commercial premises. It defines terms used in the ordinance and has sections on compliance, penalties, enforcement, alternate security provisions, life-safety factors, doors, windows, roof openings, and burglar alarm systems.

[9] International Association of Chiefs of Police, 11 Firstfield Road, Gaithersburg, Maryland.

CHAPTER VII. PROPERTY MARKING PROGRAMS

A. Purpose

Marking property serves four purposes: (1) theft is discouraged, (2) law enforcement officials can better establish whether an item in possession of a suspect is stolen, (3) recovered items can be identified, claimed and returned to the owners more efficiently, and (4) conversion of stolen property from burglar to fence is deterred.

B. Program Widely Used by Police Departments

More than 80 percent of the nation's police departments apparently have programs to mark and identify property. In a random survey[1] of 50 police departments (one in each state), 40 of the responding 47 departments (85 percent) indicated that they had one. The National Crime Prevention Institute[2] (NCPI) sent out 191 questionnaires to departments with graduates from the NCPI. Of the 91 responses, 79 (or 84 percent) said they have a property marking program.

The principal components of such programs are:

- Marking items likely to be stolen with a number that can be traced to the owner.
- Displaying a decal stating that items on the premises have been marked for ready identification by law enforcement agencies.

The most frequently used name seems to be "Operation Identification";[3] other names include "Crime T.R.A.P.,"[4] "Project Brand-It,"[5] "Thwart-a-Thief,"[6] and "Theft Guard,"[7] For ease of reference in this book, the term "IDENT" will be used to cover all of these programs.

[1] Conducted by the authors.

[2] At the University of Louisville, Louisville, Kentucky, 40222, Telephone (800) 626-3550.

[3] Attributed to Monterey Park, California.

[4] Total Registration of All Property—used in Indianapolis, Indiana.

[5] Huntington, West Virginia.

[6] Rapid City, South Dakota.

[7] Anchorage, Alaska.

C. Design Options for an IDENT Project

IDENT projects have been designed and implemented in many ways. The main options are:

- What number will be engraved:
  drivers' license, social security, other?
- Who will engrave:
  uniformed officer, civilian police employee, citizen, private organization, other?
- Who provides the engraving tool:
  checked out from police department, borrowed from store, purchased by owner, other?
- What type of promotion will be used:
  door-to-door, media, handouts, word-of-mouth, speeches, service only on request, other?
- What help is obtained, funding sources:
  insurance organizations, business groups, service clubs, volunteers, schools, federal grants, police departments, charge for service, other?

Linkage of an IDENT program to other police functions is determined largely by:

- What records are maintained, data are collected or evaluations performed?
- What use is made of the records?
- What method of recovery and return of property is used?
- What use is made of the system to increase apprehensions?

1. *Choosing a program design.* The choice among program design options usually will depend on local conditions and judgments. The key issues are discussed in the following paragraphs.

a. *What number?* Most property marking programs use driver's license numbers, because they are easy to trace, or social security numbers, since most people usually have one and they are permanent. One drawback to the use of driver's licenses is the frequency with which they change and the fact that many people do not have one. Social security numbers are limited by regulations that preclude tracing through federally maintained files. Tracing must be done through other agencies be-

sides the Social Security Administration, like motor vehicle departments that use social security numbers for drivers licenses. For these reasons, some police departments are turning to special numbering and record systems. In some instances the department creases its own file of persons who mark their property and issue numbers to those not having either a driver's license or social security number.

St. Paul, Minnesota uses a special "permanent identification number" (PIN) for all registrants in its IDENT program. The PIN is created by using the National Crime Information Center number to identify the state, city and police department plus a personal identifier assigned in sequence. The rationale for using the PIN include: (1) not everyone has a social security or a drivers' license number, (2) the use of the NCIC code allows recovered goods to be traced back to the St. Paul department no matter where they are recovered, and (3) the use of the PIN allows the local police department to construct an easily accessible file of IDENT participants. If a citizen previously has enrolled in a property marking program using either a drivers' license number or social security number, goods must be re-marked with the PIN number in order to participate in the Operation Identification program.

In *Report on a Study of Property Number Identification Systems Used in "Operation Identification"*,[8] Martensen and Greene evaluated property marking numbering systems according to the following criteria:

- Unique serialized identifier.
- Permanence.
- Ubiquity.
- Availability.
- Indispensability.
- Brevity.
- Standardization.
- Privacy.
- Traceability.
- Current status.

The numbering systems they considered were drivers' license numbers; Social Security numbers; departmental personal identifiers (DPI)—a number assigned to an individual by the local law enforcement agency and forwarded to the state for use in its article file; NCIC numbers plus five digits—the marking agency's originating agency identification number plus an individual number, such as a DPI; private numbering system—a commercial effort to provide numbers to private businesss and sometimes individuals and to keep records of marked property.

Although the authors of the study concluded that none of the numbering systems satisfied all their criteria, and make no recommendation on which number is best, the basic considerations for selecting a property marking identification number appear to be:

- How many people have a number?
- How can the person be identified through the number?
- How often will the number change?

b. *Who will engrave?* Strong, conflicting opinions exist about who should do the engraving in a property marking program. Some departments feel citizens should be responsible for borrowing an engraving tool and marking their own property. However, the resulting participation rates are likely to be low, and some departments have instead initiated door-to-door efforts to enroll people. The St. Paul, Minnesota, project is a noteworthy exception. Approximately 12 percent of the residences and business establishments were enrolled in 1973 and the first half of 1974, without a door-to-door effort. Police records show that during 1974, 500 to 700 participants enrolled every month.

While a door-to-door effort will increase participation, costs also can be very high depending upon whether the engravers are volunteers or paid police employees (i.e., civilians, reserve officers, patrol officers). In Chula Vista, California, college-student interns go door-to-door to enroll residents in Operation Identification and to conduct premise surveys. They have enrolled approximately 1,000 residents within limited target areas in eight months at a cost to the police department of over $5 per participant. By contrast, when citizens marked property themselves with engravers borrowed from the police or local businesses, the cost was just $1 per participant, but only 1,000 people citywide enrolled in a two-year period.

Following is a list of options as to who should engrave and the advantages of each:

- *Female college students hired part-time:* the cost is low and residents rarely refuse to let them into the home.
- *A male-female uniformed reserve officer team:* women alone at home will not be apprehen-

[8] Kai Martensen and Jerry Greene. *Report on a Study of Property Number Identification Systems Used in "Operation Identification,"* Public Systems, Inc., 1137 Kern Avenue, Sunnyvale, California 94086, December 1973 (prepared for LEAA/NILECJ).

sive; reserve officers are lower cost and can work part-time.

- *Police department interns:* the cost is low; police science college students properly trained do an excellent job.
- *Uniformed officers:* they improve community relations and can answer questions on all aspects of citizen concern about crime.
- *Community volunteers:* the cost is low; it provides them a way to serve the community.
- *The owners:* they do not cost public funds; it reminds them of the importance of their participation in crime prevention; police do not have to risk accidentally defacing items being engraved.
- *The police only upon request of the owners:* provides service even if police do not have the resources to undertake a door-to-door effort.

Frequently, IDENT engraving is performed along with a residential security inspection, a discussion on crime prevention, and a response to citizen questions. Thus, the choice of who performs the engraving often depends on activities performed in conjunction with IDENT.

c. *Costs.* As indicated above for the Chula Vista project, the most important determinant of cost in an IDENT program is whether or not police department personnel go door-to-door. A door-to-door approach takes about 30 minutes to an hour per household and requires one or two persons who often conduct security checks, answer questions, and generally promote citizen action to prevent burglary and other crimes. Some cities offer IDENT services only on request of the citizen to keep manpower free to do other tasks; others only lend engraving tools.

d. *With what engraving tool?* Commercially available, electric powered engraving tools are widely used. Experience indicates that citizen response to a program based on borrowing engravers from police stations, fire stations, commercial establishment is *low*. Even fewer citizens will buy their own engravers. Borrowed engravers often are not returned promptly and, occasionally, not at all.

e. *What type of promotion is used?* The highest participation rate within the target area is achieved with a door-to-door program. From 50 to 100 percent of those contacted will participate. Without a door-to-door effort, the response rate is often under 5 percent of the residents in a city.

f. *What help is obtained? Funding source?* Many local organizations work closely with law enforcement agencies in IDENT programs. For example, the National Association of Insurance Agents, Inc.[9] provides free promotional material and, for a small fee, stickers, inventory forms, and posters. Other organizations provide funds for promotional material and engravers. A recent survey asked 77 police departments how they started their IDENT programs. The response is shown in Table 6.

TABLE 6.—Operation Identification Sponsors

HOW DID YOU GET YOUR PROGRAM STARTED? A MAJORITY WERE ASSISTED IN INITIATING THEIR PROGRAM BY ONE OR MORE OF THE FOLLOWING AGENCIES:	*Number of departments*	*Percent*
Businessmen's associations	3	3.9
Banks	2	2.5
Chambers of Commerce	4	5.0
Commercial outlets	2	2.5
Exchange clubs	7	9.0
Insurance agencies	9	11.6
Jaycees	2	2.5
Lions Clubs	2	2.5
Local businesses	5	6.4
Optimist Clubs	2	2.5
Mass media	17	22.0
Rotary Clubs	2	2.5
Internal planning and arrangements	20	27.2
TOTAL	77	100.0

SOURCE: National Crime Prevention Institute, University of Louisville, Louisville, Kentucky 40222.

The Indianapolis, Indiana, property marking program is a good example of a joint police-business-community effort. Known as Crime T.R.A.P. (Total Registration of All Property), it consists of three activities: (1) marking property indelibly with the Social Security number (recommended because it is permanent and would not be duplicated in data processing), (2) filling out property inventories, and (3) obtaining Crime T.R.A.P. decals and putting them on windows.[10]

The first attempt at establishing Crime T.R.A.P. was made 15 years ago by a police sergeant who is now a deputy chief. When he approached insurance executivies with his idea, they were pessimistic about its usefulness and concerned about the costs.

[9] National Association of Insurance Agents, Inc., 85 John Street, New York, New York, 10038.

[10] During 1974, the Indianapolis *Star* ran a series of articles on alleged corruption within the Indianapolis Police Department. We are not aware of any effects this has had on activities detailed in this book.

But by 1972, faced with steadily increasing burglary rates, the insurance people indicated that they would be more than willing to help.[11] As a result, the Insurance Institute of Indiana, with assistance from groups of mutual and independent insurance agents, handles all Crime T.R.A.P. publicity and distributes inventory forms and decals to people they insure.[12] Citizens who do not have insurance can obtain the materials from fire stations.

A complement to Crime T.R.A.P. is the department's computerized file of stolen property. This system stores descriptive information on stolen property and has aided in the identification and return of property. This computer property file was first developed in 1972 by System Science Development Corp. and the department under an LEAA grant. The file contains information which meets NCIC criteria as well as data and numbers for "unidentifiable" objects, e.g., clothing, glass items and applicances with no serial number permanently engraved on them. A stolen property guide, similar to a dictionary, was developed to determine the appropriate description to be entered into the computer for "unidentifiable" objects. All pawned property must be registered with the police, including a description of the item and the name, address and thumbprint of the person pawning it. This information is given to the police daily by pawnbrokers. Two clerks enter all data about stolen and pawned property into the computer and run checks to see if there is a record of it.

Before this file was established, 90 percent of the recovered property was auctioned off because it could not be identified for return to the owner. Now 30 to 35 percent of the recovered property is identified through the system and returned. For pawned property, the system has an additional benefit. By cross indexing names and addresses, police can identify people who repeatedly pawn under one name with a variety of addresses, or one address with a variety of names. By checking thumbprints on the pawn cards, the police identify the person and check into the circumstances which cause so much pawning.

2. *Evaluation of an "IDENT" program.* The design of an IDENT evaluation will depend upon the way it is implemented locally. Appropriate evaluation measures can be chosen from among the following:

- The cost to the department and to other agencies or individuals.
- The number of participating households and how often changes of residence and acquisition of additional "markable" property negate the participation.[13]
- The number of articles which can be marked and the proportion of those which are marked.
- The burglary rates and property loss among participants and non-participants.
- The total burglary rate.
- The number of stolen items recovered by use of IDENT markings (to be compared with all other methods of recovery).
- The number of arrests and convictions resulting from or aided by IDENT markings (to be compared with all other methods).
- The burglary rate for participants and neighbors.

Anecdotes, impressions and judgments can contribute to an evaluation but do not constitute proof. For IDENT, however, they make up much of the evaluative material currently available. For example, the National Crime Prevention Institute survey asked departments how they rate the effectiveness of their IDENT program and what the principal problems were in implementing the program; the results are shown in Table 7. *Public apathy* is the most frequently mentioned problem.

Numerous anecdotes illustrate that IDENT does work. Known burglars and fences say marked goods are less desirable to steal and that residences with IDENT stickers often are avoided. Police have stopped vehicles for traffic violations and found goods in them that had IDENT markings.

The burglary rate in households participating in IDENT has been frequently noted as being much lower than for non-participants. However, the authors could not find conclusive evidence that IDENT reduces the citywide burglary rate. The most widely cited example of IDENT's effectiveness is in Monterey Park, California, where between 1963 and 1972 one half of the 11,000 households have participated in IDENT and only 23 of them have reported burglaries. The non-participating half reported some 2,000 burglaries. However,

[11] Community involvement was through the Indianapolis Women's Anti-Crime Crusade.

[12] One Insurance Institute of Indiana member gives a 10 percent discount on property insurance to participants.

[13] Nationwide about one in five inhabitants change their residence each year.

TABLE 7.—Effectiveness and Problems of IDENT Programs

Question	Police Departments	Percent
HOW DO YOU RATE THE EFFECTIVENESS OF THE PROGRAM IN YOUR AREA?		
Ineffective	15	18.0
Moderately effective	11	13.2
Effective	23	26.5
Very effective	12	14.4
Most effective	1	1.5
No response	7	8.4
Too soon to tell	15	18.0
TOTAL	84	100.0
WHAT ARE SOME OF THE PROBLEMS YOU HAVE ENCOUNTERED? THE FOLLOWING IS A LIST OF PRINCIPAL RESPONSES:		
Public apathy	20	26.3
Lack of manpower	3	3.9
Citizen participation	14	18.4
Not enough engravers	17	22.7
Insufficient funding	2	2.6
Lack of understanding by police personnel	3	3.9
Inability to get into minority areas	3	3.9
Poor implementation	9	11.8
Loss of engravers	2	2.6
Faulty equipment	3	3.9
TOTAL	76	100.0

SOURCE: National Crime Prevention Institute, University of Louisville, Louisville, Kentucky.

between 1963 and 1972 the total number of burglaries in Monterey Park approximately doubled.[14] Between 1960 and 1970, the population increased about 28 percent. Two possible explanations for this phenomenon are frequently cited:

- Participants might have prevented burglaries even without IDENT.
- Burglary is displaced to the non-participants.

However, a survey in St. Louis[15] tends to contradict the second explanation and indicates that, if there is displacement, it is to households further removed than just neighbors of participants. The survey showed that:

- Prior to becoming participants, the participating households had about the same burglary rate as the non-participants at present; burglary rates for participants dropped as compared to the citywide residential burglary rate.
- Neighbors of participants (most of whom are non-participants) have not experienced burglary rates any higher than for the other non-participants.

In summary, it can be concluded that participation in IDENT is associated with lower burglary rates, but the impact on the citywide burglary rate cannot be adequately predicted from evidence compiled thus far.

[14] If half of the residential burglary had been prevented and about 60 percent of all burglary was originally residential, then there should be about a 30 percent reduction in total burglaries, all other things being the same.

[15] Dennis McCarthy, *Report on the Operation Ident Telephone Survey of May 1973*, Evaluation Unit, St. Louis High Impact Crime Program, Missouri Law Enforcement Assistance Council, Region 5, 812 Olive Street, Room 1032, St. Louis, Missouri 63101.

CHAPTER VIII. SELECTED SURVEILLANCE TECHNIQUES: PATROL, ALARMS, AND ANTI-FENCING EFFORTS

The purpose of this chapter is to describe techniques that become important once a burglar has decided to strike. Community education, premise surveys, and property marking cannot prevent all burglaries. Once a burglar strikes, the primary techniques that can still be used are patrols, alarms, and activities to disrupt fencing.

A. Patrol Activity

Special patrol tactics have shown some promise. These include:

- Patrolling on bicycle in areas reached otherwise only by foot, such as large complexes of apartments.
- Spotting truants and returning them to custody of their school.
- Watching for suspects thought to be operating in the area and letting them know they are recognized.
- Installing temporary, wireless alarms at high risk sites and having receivers in special patrol vehicles as well as the police station.

1. *Bicycle patrol.* In one predominantly "bedroom" community,[1] undercover officers patrol on bicycles in and around apartment complexes where cars cannot travel. An unmarked car in the area maintains radio contact with the cyclist. The two-officer patrol usually operates from 11:00 p.m. until 3:00 a.m., with the two officers alternating between car and bicycle. Several significant arrests have resulted from this tactic.

2. *Truancy Patrol.* Many departments try to suppress school truancy as a means of decreasing daytime burglary. The programs used in San Bernardino and Glendale, California, serve as examples. In San Bernardino, the program was experimentally implemented over the entire city for a two-week period (November 5 to November 20, 1973). The program was announced in school newspapers just prior to the program's start and school officials were fully informed. Nine officers from a "Crime Specific Burglary" unit were used, concentrating in one of five city areas for a day each week. When a suspected truant was picked up, police notified school officials, who in turn notified parents by telephone or telegram. In the two weeks, 120 "AWOL" students were returned to campuses and 17 were arrested. Throughout the city in that period an average of 1.6 daytime burglaries were reported daily. For the entire year, the average daily burglary rate ranged from a low of 1.7 in June to a high of 2.5 in January, September, and October (Table 8). Thus, the daytime burglary rate reached a low during the two weeks of the truancy patrol.

Police in Glendale learned of San Bernardino's truancy patrol and implemented a similar program —also with good results. They selected a target area

TABLE 8.—Reported Daytime Daily Burglary Rates in San Bernardino for 1973

Time period	*Average daily daytime burglaries reported*
January	2.5
February	2.1
March	missing
April	2.1
May	1.9
June	1.7
July	1.9
August	1.7
September	2.5
October	2.5
November*	3.0
December	1.8

* 4 days, pre-truancy patrol (1-4 Nov)	8.0
14 days, truancy patrol (5-18 Nov)	1.6
12 days, post-truancy patrol (19-30 Nov)	3.0

[1] Chula Vista, California.

near three schools (two junior high schools and a senior high school) and implemented a truancy patrol for four weeks (May 13 to June 7, 1974). Four unmarked police cars and one marked car patrolled and returned 112 students to schools and made 10 felony arrests. The daytime residential burglary rates in the target area are shown in Table 9, below. During the truancy patrol period, the rate was 0.1 burglaries per day as compared with 0.8 burglaries per day in April and 1.0 in March. It is not known whether the tactic had a displacement effect on burglary.

TABLE 9.—Reported Daytime Daily Burglary Rates in Glendale Truancy Patrol Target Area

Time period	*Reported residential daylight burglaries per day*
March 1974	1.0
April	0.8
May 1 to May 12	0.5
May 13 to June 7 (truancy patrol)	0.1

3. *General patrolling.* The Police Foundation has sponsored an experiment on the general (not crime specific) effects of patrol in Kansas City, Missouri, by comparing:

- Patrolling as usual.
- Responding only to calls, with no preventive patrolling.
- Increasing patrols to two to three times the usual level.

The preliminary indications are that there is not much difference in the impact of the three options tested.[2]

Analysis of preliminary data in a crime-specific burglary project covering six cities in California[3] produced similar results. There was no consistent indicator that the project had an impact on reducing burglary.

4. *Patrols with alarms.* In the St. Louis High Impact Anti-Crime Program, the police department experimented with wireless alarms installed at selected commercial establishments based on a computer analysis of crime trends. The alarms remained in place for about two months and were monitored by special patrol cars as well as police station personnel. Burglars were caught at sites with the alarms—but not by the special patrol cars, which happened to be off duty at the time. Regularly dispatched patrol units were credited with the arrests.

B. Burglar Alarms

Burglar alarms appear well suited only to sites with a high threat of burglary. For low-threat sites, the cost of merely answering false alarms becomes a major constraint.

1. *Alarm options.* The three principal options open to a police department are:

- Selectively discourage or promote use of private alarms, depending on the burglary threat.
- Discourage false alarms.
- Operate alarms with police department funds.

Since very few residential units have alarms, only one or two percent of residential burglaries occur in alarmed sites. About one in three non-residential burglaries occur in alarmed sites. In general only a small minority of all sites are alarmed, and in many cases the alarms fail to operate or are defeated by the burglars.[4]

2. *Reducing false alarms with fines.* In an effort to control the false alarm problem, a city ordinance in San Bernardino, California, levies fines for false alarms following warnings to offenders. As a rule, a $20 fine is levied after the third false alarm. False alarms were considerably reduced as a result. But conversely, the false alarm ordinance also sharply reduced the percentage of retail burglaries detected by alarms in the second half of 1973 (Table 10).

TABLE 10.—Percent of San Bernardino Retail Burglaries Detected by Alarms in 1973

Quarter	*Percent*
1	7.5
2	8.1
3	3.9
4	1.4

[2] *The Kansas City Preventive Patrol Experiment: A Summary Report*, Police Foundation, 1909 - K Street, N.W., Suite 400, Washington, D.C. 20006.

[3] *Crime Specific Burglary Prevention Handbook*, System Development Corporation. Prepared under the direction of the California Council on Criminal Justice, Sacramento, California, 1974.

[4] One analysis in California showed that the alarm either was defeated or failed to operate in half of the cases.

3. *The Cedar Rapids experiment.* An experiment conducted by the Cedar Rapids, Iowa Police Department indicates that alarms do not decrease burglary rates in sites where they are installed, but do significantly increase the chances of apprehending the burglars.

The department received a LEAA grant in 1969 to place silent alarm systems in 350 locations, connect them to the police station, operate and maintain them for one year, and study the results.[5] An experimental group with alarms was matched with a control group without alarms—142 sites in both groups in 1970 and 115 in both in 1971. The burglary rates over the two years was almost identical—about 25 percent for both groups. But the on-scene arrest rate for the alarmed sites was far higher (29 percent, or 20 out of 68 burglaries) than for the non-alarmed control group (6 percent, or 4 out of 69 burglaries). All burglars arrested on-scene pleaded guilty. The clearance rate for alarmed sites averaged about 30 percent as compared to 20 percent for the control group.

The study also provided data, comparisons, and conclusions on false alarm rates and causes, clearances, burglary losses, costs, and other topics.

The cost of the program—initial plus operating, computed on an annual basis over an expected life of 10 years—was $107 per site or $1,600 per burglar apprehended at the scene. (This does not include the cost of answering false alarms, which averaged seven per site in 1971.) There was no cost to owners in 1971. At the end of the first year, the alarm system was given to Cedar Rapids, but the LEAA grant was not continued. Funding for the second year was obtained from the state, the city, and the alarm users.

[5] Cedar Rapids, Iowa Police Department. "Installation, Test and Evaluation of a Large-Scale Burglar Alarm System for a Municipal Police Department," first and second year reports.

The comparative results for alarmed versus non-alarmed sites are shown in Table 11.

The Cedar Rapids program has come under strong criticism for competing with private industry. Garis F. Distlehorst, executive director of the National Burglar and Fire Alarm Association (NBFAA), says the Cedar Rapids alarm operation "should be disbanded entirely and the alarm service provided by the Bureau be returned to private enterprise." He notes further that two alarm companies in Cedar Rapids" . . . have been forced out of business and the two remaining companies are fighting for their very existence."[6]

C. Anti-fencing Operations

"Experience has shown that by cutting off the 'fence' a major obstacle is placed in the path of encouraging thefts as a profitable venture . . . . In the eyes of the law, the 'fence' is more dangerous and detrimental to society than the thief . . ."

Court of Appeal in *People v. Tatum*
(1962) 209 CA 2nd 179 at 183

Anti-fencing programs have the mission of:

- Identifying and closing fencing operations;
- Initiating criminal prosecution; and
- Developing and maintaining information for the local fencing detail, the prosecution, and authorities in other jurisdictions.

[6] Quoted from "Executive Director's Message" page 5 in the Second Quarterly 1974 edition of "Signal"—the official publication of the National Burglar and Fire Alarm Association, 1730 Pennsylvania Avenue, Washington, D.C.

TABLE 11.—Comparisons of Sites with and without Silent Alarms in Cedar Rapids

	Experimental group (alarmed)		*Control group (non-alarmed)*	
	1970	*1971*	*1970*	*1971*
Number of sites	142	115	142	115
Burglaries	46	22	36	33
Burglaries per site, per year	0.32	0.19	0.25	0.29
Burglaries resulting in one or more arrests* at scene	12	8	1	3
Burglaries with on scene arrest(s)	26%	36%	3%	9%
Clearance rate	33%	28%	17%	22%

*The average of 2.4 people were arrested when arrests were made at the scene.

The main issues in an anti-fencing program include:

- Local laws regarding entrapment, evidence, and operation of pawn shops and other businesses dealing with second hand property.
- Methods for obtaining information.
- Undercover transactions: buying and selling of stolen property.
- Methods for tracing stolen property.
- Maintaining, processing, and utilizing records of property, crimes, people, vehicles, and addresses.

The small number of anti-fencing programs[7] examined by the authors and the closely held operational details precude drawing general conclusions —remarks will be limited to suggestions and observations. Discussion of specific legal issues is beyond the scope of this book, primarily due to the variations from locality to locality. Since some police anti-fencing programs must, by necessity, operate at times very close to the limits of the law, the requirement of knowing these limits is essential.

Methods for obtaining information and evidence about fencing include the following:

- Clandestine recording of the sight and sound of transactions as undercover officers buy or sell stolen merchandise.
- Setting up "store-front" operations staffed with undercover agents who "let it be known" that they will buy or sell "anything." Transactions involve reasonable illicit-market prices. After a few months, simultaneous arrests are made and the store-front is shut down for a "cooling off" period.
- Checking for stolen goods at any site where used merchandise is bought or sold, such as swap meets, second hand stores, pawn shops, and the like.
- Conducting "on-the-street" undercover transactions with suspects.
- Paying informants.
- Questioning suspected thieves, burglars, shoplifters, and fences who are being held in jail.

Specific recommendations on how to run a good anti-fencing program are summarized by selected quotations:

"Maintain communication with other departments to ascertain how stolen property moves in and out of city limits."

—Sergeant Lloyd Meister
San Jose, California,
Police Department

"The large (fencing) operatings have developed highly efficient transportation systems to move the merchandise quickly out of the area . . . . Large electrical appliances and stereo-televisions are moved to the Flagstaff, Arizona area. Furs and jewelry are taken to Denver, Colorado to be redone or recut and marketed . . . . Smaller, appliances . . . are transported to Mexico . . . the really big fences in Albuquerque aren't physically present in the city; they just supply the money and frontmen engage in the actual business of buying and selling."

—Richard P. Fahey[8]

"The suspects we have encountered are seldom from our city."

—Chief of Police
Huntington Beach, California

"Those suspects in custody assisting this agency in a sale of stolen property to a 'receiver of consequence' were assured of a letter of support from this department for their valuable assistance to the court jurisdiction having their case . . . . The letter of support was very successful in that our suspects/informants continued to render information . . . . The information was invariably well founded, and usually resulted in the apprehension of burglars, receivers, and recovery of substantial property."

"The main key to our success has been this association (with property suspects) and our filing system we maintain on all the known fences . . . . The file system starts with a card on any known suspect. Every time a bit of

[7] Partial descriptions of programs in San Jose, San Bernardino, and Chula Vista, California; Indianapolis, Indiana and Denver, Colorado, can be found in the appendices of the expanded version of this document (See footnote 1, page 1.)

[8] "A Preliminary Inquiry into the Marketing of Stolen Goods in Albuquerque," Working Paper of the Criminal Justice Program, Institute for Social Research and Development, University of New Mexico, September 1971.

information comes in, an entry is made on this card and if the secretary hits on a card of several entries, she will bring it to our attention. Then we will begin to develop a folder on that particular fence."

"Our informants are pretty good. The only problem we do have is when you get into a better caliber of informant—it often takes cash . . . . Every morning, we have been going into the jail . . . and pulling all those people arrested for shoplifting, petty theft, narcotics and we have been talking to them . . . . In talking with them, they have a fence where they can get rid of it . . . . A female was arrested for shoplifting several bottles of alcoholic beverage . . . we won't overlook those people. Sure, they're small, but you're going to have to start some place . . . . You might as well start with the peon and go right on up."

—Confidential Sources

As indicated in these quotes and previously presented material, a department has significant latitude in how to implement a burglary prevention program or any component of one. However, the costs can escalate rapidly and to date program success is far from assured. For this reason, it is critical that any prevention program include a vulnerability analysis and evaluation component.

APPENDIX A

POLICE CRIME PREVENTION TRAINING

POLICE CRIME PREVENTION TRAINING

As crime prevention becomes a more important part of the police job, the need for training increases. Some departments provide in-service crime prevention training, and some states have statewide training programs. The National Crime Prevention Institute (NCPI) at the University of Louisville in Kentucky trains law enforcement officers from throughout the United States.

Officers from Albuquerque, New Mexico, and Huntington, West Virginia have assisted other departments in setting up and conducting crime prevention seminars. In both cases, the officers are NCPI graduates and work in units charged with crime prevention activities in their respective departments.

Oregon has a statewide crime prevention training program coordinated by the state Board on Police Standards and Training (BPST). During 1974 a week-long training session was conducted by BPST staff and visiting NCPI instructors. For six weeks during the summer of 1974, BPST staff as well as crime prevention officers from various departments travelled throughout Oregon conducting one-day, 8-hour, crime prevention training seminars. In the future, BPST hopes to continue its travelling seminar program and to provide an annual advanced crime prevention training sessions.

The Southwest Texas Crime Prevention Institute, directed by Richard Hill, was organized in San Marcos in the summer of 1974 to provide crime prevention training to law enforcement officials across the state. Seven two-week seminars were conducted during the summer and fall, using a curriculum guide designed by Koepsell-Girard Associates, Falls Church, Virginia. All staff members at the Institute are Texas police officers who graduated from the National Crime Prevention Institute. The officers come in once during the two-week period to talk about their areas of expertise. (Some of the instructors for the fall sessions had graduated from the Texas Crime Prevention Institute during the summer.) The Institute is funded by the state criminal justice planning agency. At this writing, refunding negotiations are underway. The staff hopes to conduct 15 two-week seminars during 1975 for crime prevention officers, and three additional three-week seminars for supervisors and administrators of crime prevention units. They also hope to conduct two-week to three-week travelling sessions to serve officers in small police agencies.

The National Crime Prevention Institute is part of the school of Police Administration at the University of Louisville and has been funded since 1971 by the Law Enforcement Assistance Administration. Each year six four-week crime prevention seminars are conducted for police officers. The officers are taught the importance of prevention, and citizen participation in crime prevention. By the fall of 1974, 551 officers from 305 departments and 45 states (including Canada and Puerto Rico) had attended the four-week NCPI seminars.

Former NCPI director Wilbur Rykert feels that a major problem facing crime prevention today is a lack of continuity. For example, he says, civic organizations frequently decide to do something about preventing crime, announce their intentions publicly, run the project briefly—and then it's over. He believes that a formal crime prevention bureau within police departments is essential to ensure continuous crime prevention programs.

The following narrative about the NCPI is compiled from excerpts from "What is the National Crime Prevention Institute?" by William D. McInerney. McInerney, the Asistant Director of NCPI, wrote the article for the third quarter 1973 issue of SIGNAL, the official publication of the National Burglar and Fire Alarm Association.[1]

> The National Crime Prevention Institute was originally established and is presently operating under a Law Enforcement Assistance grant for training law enforcement officers in the emerging field of crime prevention. The operation of a Crime prevention Bureau may require major philosophical changes in many police departments. Crime Prevention means a strengthening of the police role in direct prevention rather than the traditional role of detection and apprehension. Nevertheless, a good

[1] Quoted with permission of the publisher.

prevention program will, in fact, strengthen the ability of the police organization to make better use of its detection facilities and to increase the rate at which they apprehend sophisticated criminals. In dealing with the history and principles of crime prevention it will be necessary to review some of the basic concepts in the development of the police service in England and then relate them to the development of the police organization as we know it in the United States today.

The President's Crime Commission in the challenge of crime in a free society recognized the existence of such a program but did not have the time or resources to fully investigate it. Professor John Klotter, Dean of the School of Police Administration, University of Louisville, with the help of a Ford Foundation grant was able to make a detailed study of burglary prevention in the United States and of the English strategy in crime prevention training. He recommended in his report that a similar type training be established in this country.

In 1969, Charles Owen of the Kentucky Crime Commission recognized the validity of this approach and assisted the University of Louisville in seeking a Law Enforcement Assistance grant for the development of a crime prevention program.

The trainees were selected from departments who have given an advance commitment to the establishment of a crime prevention program. Consideration was also given to the size and geographical location of the department. Over 80 percent of the departments who send officers to school have fulfilled their part of the requirements and have in fact implemented or expanded their crime prevention efforts.

In order to narrow the scope of crime prevention training to a manageable area, the National Crime Prevention Institute has adopted the crime prevention categories: (1) punitive, (2) corrective, and (3) mechanical as identified by Dr. Peter Lejins of the University of Maryland.

Category 1 is punitive. The threat of punishment deters a person from committing an offense for which he might be punished. There has been a great deal said about the punitive approach which appears to have been the one approach used for centuries. While there are those who will argue that the punitive approach has no value, Lejins has emphasized that the threat of punishment and the fact that punishment will be carried out, not the severity of the punishment, is still a major deterrent to crime.

Category 2 is corrective. Major emphasis is on working with the individual or social conditions in order to ensure that the individual will not commit another offense or that the community environment will be such that criminal behavior is discouraged. In the corrective area, we see two things: first, the emphasis on working with an individual once he has committed a crime, been convicted, sentenced, and assigned to a correctional institution or placed on probation. This approach has achieved varied success, but in any event it takes place only after the criminal event has occurred. The other part of the corrective category deals with altering social conditions, tearing down slums, building new public housing, adding street lights, anything that can change the environment or conditions under which crime is thought to flourish.

Category 3 is mechanical. Placing obstacles, in the path of the would be offender to make committing the crime more difficult. The mechanical category of crime prevention is the most recent category to achieve major emphasis on a national basis.

When related to opportunity reduction, mechanical crime prevention goes beyond mere mechanical devices relating directly to security. The altering of community environments through architectural planning, remodeling of old structures, increasing citizen surveillance levels, and any other program that will make criminal activity a high-risk action on the part of the individual can be placed in the mechanical category. Viewed according to Lejin's strict definition, the Institute's program of training is based both on mechanical prevention and the second portion of the corrective category. "Target hardening" may more appropriately be termed that part of mechanical prevention that deals with the hardware of security. In the past two years, a great amount of interest has developed in the area of mechanical prevention.

Critics argue that mechanical prevention does not prevent crime, but only displaces it either into another geographical location or into another crime category. This is hardly an argument against the concept. As a matter of fact, the very essence of security is that you will turn the criminal from the protected premises to the unprotected. From a community point of view security applications on the part of individuals could push criminal activities into areas of the community with previously low crime experience. Evidence does exist, however, indicating that the bulk of criminal activities is carried out by persons who are not highly mobile and that wherever displacement occurs it will force them into unfamiliar areas of operation or into types of criminal activity where they are unskilled and therefore more vulnerable to apprehension by the police. Success in a mechanical prevention program can be claimed if, in fact, a great deal of displacement does take place. Critics of mechanical prevention must bear in mind that actual lowering of crime through the mechanical approach may take several years before significant results can be shown. But they should also not lose sight of the fact that very little success has been shown through the operation of punitive or corrective processes. Other critics of mechanical prevention state that increasing security will exploit the ability of criminals to defeat security devices. It should be clear to all that anything devised by man can also be defeated by man. But only a limited group of highly skilled, dedicated criminals reach the stage where they can defeat technology with other than brue force. It would be disastrous if crime prevention efforts totally disregarded technology on the basis that unskilled criminals would be able to learn defeat skills faster than our scientific community could improve upon prior efforts.

In summary, the bulk of crime is committed by relatively unskilled individuals and if they can be prevented from criminal success, they may learn that crime is not the easiest way to achieve their desired goals and focus their attention on more legitimate avenues of success. The theory of opportunity reduction—criminal behavior is learned behavior. A criminal act is a success if the perpetrator is not detected, but it is also successful if it contributes to the reinforcement of criminal beliefs if even after detection the criminal has had ample time to consume the fruits of his illegal enterprise, if he is able through other means to escape final punishment provided under the law, or if the punishment itself can be viewed by the perpetrator as being less a personal loss than the gains he received by the criminal act itself.

Reducing criminal opportunity reduces the opportunity to learn criminal behavior. Reducing criminal opportunity not only reduces the individual's opportunity to learn about crime, but it also reduces the opportunity to receive positive reinforcements favorable to the criminal actions. Indeed, the individual's failure to achieve criminal success will provide negative reinforcement to criminal belief structures and positive reinforcement to the belief that crime is not the path of least resistance. Therefore, legitimate paths to success become more inviting to the individual.

Criminal opportunities can be lessened by improved security measures and by increasing the level of surveillance on the part of the general public. First of all, the environment can be designed so the individual considering the criminal act feels that there is a good chance for him to be seen by someone who will take action on their own or call the police. Second, the target of his attack can be made to appear so formidable that he does not believe that his abilities will enable him to reach the forbidden fruit. And there, if he actually attempts to reach the goal the probability of his failure can be increased through the ready response of the police. The police are in a pivotal position and as such they should be trained in crime prevention and become involved in the preplanning of any community activity where their service will later be called for.

This statement provides a basis for all training and implementation of programs as defined in the crime prevention definitions used by the Institute. It means basically that if the police are called in response to an actual crime such as burglary, robbery, or shoplifting, they should also be concerned about reducing the crime risk that led to the commission of the overt act. Extended, this statement means the police do not have to take a passive role in the planning process but they should take a posi-

tive step forward and actively solicit the opportunity to provide crime prevention advice in the planning stages of community activities. Insurance, security hardware, and other areas of business and industry involved in crime prevention programs must exchange information with the police. Security hardware and procedures, police response, and insurance make up the three levels of protection available to all citizens. At the current time very little exchange of personnel or information exists within the three areas of endeavor.

It has been well documented by the Small Business Administration that insurance data and police data do not always compare favorably with each other, and there is evidence that some manufacturers of security hardware equipment do a better job of analyzing police resources as part of their marketing studies than the police departments themselves. The insurance industry and security hardware manufacturers are in business purely because of the profit motive. The police, however, are in business to provide adequate levels of service to the community and should take a leadership role coordinating the crime prevention efforts on all three levels of protection.

APPENDIX B

MINNESOTA CRIME WATCH

The Minnesota Crime Watch program is aimed at enlisting the support of an entire community in combatting crime. The stated major aim of the program is to prevent crime by reducing the opportunities for criminal occurrence which are created by the victim. Funded in June 1973 by the state criminal justice planning agency, the program was modeled on the California crime-specific prevention experience which found public education and improved security measures to be most effective.

The following article "Minnesota Crime Watch"[1] provides an overview of the program and preliminary information on success to date.

[1]Reproduced with permission of the Governor's Commission on Crime Prevention and Control.

INTRODUCTION

During the first week of October, 1973, Governor Wendell Anderson launched a statewide crime prevention program by proclaiming Crime Prevention Week in Minnesota.

The long-range goal of Minnesota Crime Watch is to reduce the incidence of crime in the state. The immediate objectives to be pursued jointly by the participating police and sheriff's departments and the Governor's Commission on Crime Prevention and Control include:

Increasing citizen awareness of the problems of crime in a community; educating and training citizens in specific measures they can take to prevent crimes from occurring to their person and property; involving organized citizen and youth groups in crime prevention activities; and securing long-range changes through legislation and community planning for security designed to improve the crime prevention capabilities of Minnesota residents.

Minnesota Crime Watch is designed to provide participating law enforcement agencies with the necessary resources and support materials to implement local crime prevention programs. It has been demonstrated that crime prevention applied to a small geographical area will result in considerable displacement of criminal activity to adjacent areas. This displacement effect diminishes as the area of crime prevention activity is widened. It is the ultimate goal of Minnesota Crime Watch to undertake crime prevention programs and activities throughout the entire state of Minnesota.

Home Burglary Prevention

Because of the enormous rise in residential burglaries and the intense public concern about this threat, the first subject of concentrated effort is the prevention of residential burglary.

The specific objectives of the first phase of Minnesota Crime Watch are to tell the citizen how to make his home less inviting as a target for burglars; how to make his home less accessible should it be chosen as a target; and how to participate in Operation Identification, making his personal property less desirable to burglars and, in fact, making his property a threat to burglars.

Operation Identification

One of the most important components of Minnesota Crime Watch is Operation Identification, the program in which citizens mark their valuable possessions with a Permanent Identification Number, register this number with the police, and then post window stickers in their homes warning would-be burglars of the risk in entering those homes.

A burglar is discouraged in two ways. First, he knows he cannot sell the belongings to a dealer of stolen goods. No dealer wants to be apprehended with stolen merchandise, particularly merchandise easy to trace and identify.

Secondly, the burglar knows that if he is apprehended with someone's marked property in his possession, it is evidence that will convict him in court. Operation Identification is proving effective in reducing the incidence of burglary in Minnesota as it has in many cities throughout the country.

After six months of Crime Watch operation, the number of homes and businesses enrolled in Operation Identification has increased sixfold - to the point where it now represents approximately 375,000 Minnesotans. And, as expected, an evaluation of the program shows that it pays to join. The likelihood of a burglary in one of these enrolled homes or businesses is reduced by 78 percent.

Minnesota Crime Watch is unique in that it is attempting to implement Operation Identification in every community in the state, using a statewide Operation Identification sticker.

While it is still too early to assess the long-range impact of Crime Watch, we do know that the burglary rate for the first three months of 1974 declined to 164 per 100,000 population, compared with 201 per 100,000 for the same period of 1973. We do know that the burglary rate for homes *not* enrolled in Operation Identification is 4.5 times greater than that for enrolled homes.

Commercial Security

The second phase of Minnesota Crime Watch focuses on commercial security—the prevention of crimes against businesses. Our objective is to educate and alert the businessman on steps he can take to make his business more secure, thereby reducing the likelihood of becoming the victim of burglary, robbery, shoplifting and employee theft.

Personal Security

The third phase of Minnesota Crime Watch deals with the precautionary measures individuals can take to reduce their chances of becoming the victim of crimes against person, including assault, rape, robbery and purse-snatching. A slide presentation and brochures will be provided to the participating departments for use in their own communities. A series of mass media materials will be developed for use by radio and television stations and newspapers during 1975.

Local Implementation

While the program is coordinated at the state level, Minnesota Crime Watch is implemented at the local level by each police chief or sheriff and his designated project officer. The participating local law enforcement agencies provide the manpower and leadership to conduct the program within their own community.

There are now 215 police and sheriff departments, serving over 90 percent of the state's population participating in Minnesota Crime Watch. All participating agencies have been provided with the materials needed to educate citizens about specific precautionary measures they should take to prevent becoming a victim of crime. These materials include a brochure describing Operation Identification and a brochure entitled "What to do Before the Burglar Comes," the stickers and engravers used in Operation Identification, and commercial security booklets.

Law Enforcement agencies have also been provided with a set of visual aids (slide and speech presentation and posters) on burglary prevention to be used during presentations to residents in their communities and a slide and speech presentation on commercial security to be used in presentations to businessmen.

Through these officers, crime prevention has taken on a new emphasis in Minnesota. Sixteen police and sheriff's departments have established crime prevention units. There are now more than 20 full-time and 180 part-time crime prevention officers in our state. A Minnesota Crime Prevention Officers Association, one of the first such organizations in the nation, was formed in January. It now has 130 members.

The program also encourages the formation of a Citizens Crime Prevention Committee in each community in the state. These committees encourage community participation in crime prevention activities and assist law enforcement agencies in distributing program information. In addition, hundreds of civic groups have made Crime Watch a priority project.

Prevention Seminar

The program was introduced initially to more than 120 law enforcement officers representing 65 departments throughout the state at a Crime Prevention Seminar July 9-12, 1973, at Alexandria, Minnesota.

Nationally renowned experts on crime prevention and security presented information on physical security devices, such as locks, keys, safes, alarm systems; retail and commercial security; state building codes; lighting for crime prevention; and the mechanics of establishing crime prevention units in law enforcement agencies. The officers attending also learned how to conduct premise surveys of homes and businesses.

A two-week long crime prevention training seminar was held November 4-15, 1974 for additional law enforcement officers now involved in the Minnesota Crime Watch program.

Information Campaign

Newspaper advertisements, television and radio commercials, movie theater ads, bus cards, bumper stickers, and outdoor billboards relating information on the residential burglary program have been distributed throughout Minnesota. These media devices assist in educating the public in basic security measures to prevent burglary and urge residents to contact their local law enforcement agency for more information.

Cooperation from the media has been excellent. During the initial 3-month period of Crime Watch operation, newspapers throughout the state ran over 250 of the Minnesota Crime Watch advertisements as a public service; over 250 news stories

appeared; the state's television stations donated time to play the Minnesota Crime Watch commercials an average of 5 to 6 times a week; all of the state's radio stations donated time for the radio commercials; over 60 Minnesota Crime Watch billboards went up over the state; and all of the Metropolitan Transit Commission busses carried Minnesota Crime Watch advertising.

Minnesota Crime Watch is funded by the Law Enforcement Assistance Administration through the Governor's Commission on Crime Prevention and Control.

APPENDIX C

OAKLAND, CALIFORNIA SECURITY ORDINANCES

OAKLAND

POLICE-FIRE AND INSURANCE COORDINATING COMMITTEE
MODEL BURGLARY SECURITY CODE
MINIMUM STANDARDS

I. Purpose

The purpose of this Code is to provide minimum standards to safeguard property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within a city and certain equipment specifically regulated herein.

II. Development of Model Code

The following City Ordinances were used as guides in developing the model code: General Ordinance No. 25, 1969, as amended, City of Indianapolis, Indiana — Section 605-3 — F211 Housing Inspection and Code Enforcement, Trenton, New Jersey — Section 23-405 of the Arlington Heights Village, Illinois, Code — Section 614.46 Chapter 3 of the Arlington County, Virginia, Building Code — Section H-323.4 of the Prince George's County, Maryland Housing Code — City of Oakland, California Building Code — Burglary Prevention Ordinance, Oakland, California.

III. Scope

The provisions of the Code shall apply to new construction and to buildings or structures to which additions, alterations or repairs are made except as specifically provided in this Code. When additions, alterations or repairs within any 12-month period exceed 50 percent of the replacement value of the existing building or structure, such building or structure shall be made to conform to the requirements for new buildings or structures.

IV. Applications to Existing Buildings

(It is the Committee's recommendation that the Code apply only to new construction, additions, alterations or repairs. However, some cities may wish to include present structures. If so, the following paragraph may be substituted for III. above.)

All existing and future buildings in the city shall, when unattended, be so secured as to prevent unauthorized entry, in accordance with specifications for physical security of accessible openings as provided in this Code.

V. Alternate Materials and Methods of Construction

The provisions of this Code are not intended to prevent the use of any material or method of construction not specifically prescribed by this Code, provided any such alternate has been approved, nor is it the intention of this Code to exclude any sound method of structural design or analysis not specifically provided for in this Code. Structural design limitations given in this Code are to be used as a guide only, and exceptions thereto may be made if substantiated by calculations or other suitable evidence prepared by a qualified person.

The enforcing authority may approve any such alternate provided he finds the proposed design is satisfactory and the material, method or work offered is, for the purpose intended, at least equivalent of that prescribed in this Code in quality, strength, effectiveness, burglary resistance, durability and safety.

VI. Tests

Whenever there is insufficient evidence of compliance with the provisions of this Code or evidence that any material or any construction does not conform to the requirements of this Code, or in order to substantiate claims for alternate materials or methods of construction, the enforcing authority may require tests as proof of compliance to be made at the expense of the owner or his agent by an approved agency.

VII. Enforcement

The Multiple Dwelling and Private Dwelling Ordinances shall be included in the Building Code and enforced by the Building Official. The Commercial Ordinance shall be administered and enforced by the Chief of Police.

VIII. Responsibility for Security

The owner or his designated agent shall be responsible for compliance with the specifications set forth in this Code.

IX. Violations and Penalties

It shall be unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy or maintain any building or structure in the city, or cause the same to be done, contrary to or in violation of any of the provisions of this Code.

Any person, firm, or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor and shall be punishable by a fine of not more than $500, or by imprisonment for not more than six months, or by both such fine and imprisonment.

X. Appeals

In order to prevent or lessen unnecessary hardship or practical difficulties in exceptional cases where it is difficult or impossible to comply with the strict letter of this Code, and in order to determine the suitability of alternate materials and types of construction and to provide for reasonable interpretations of the provisions of this Code, there shall be created a Board of Examiners and Appeals (if none exist). The Board shall exercise its powers on these matters in such a way that the public welfare is secured, and substantial justice done most nearly in accord with the intent and purpose of this Code.

MODEL COMMERCIAL BURGLARY SECURITY ORDINANCE MINIMUM STANDARDS

I. All Exterior Doors Shall Be Secured as Follows:

A. A single door shall be secured with either a double cylinder deadbolt or a single cylinder deadbolt without a turnpiece with a minimum throw of one inch. A hook or expanding bolt may have a throw of 3/4 inch. Any deadbolt must contain hardened material to repel attempts at cutting through the bolt.

B. On pairs of doors, the active leaf shall be secured with the type lock required for single doors in (A) above. The inactive leaf shall be equipped with flush bolts protected by hardened material with a minimum throw of 5/8 inch at head and foot. Multiple point locks, cylinder activated from the active leaf and satisfying (I, A and B) above may be used in lieu of flush bolts.

C. Any single or pair of doors requiring locking at the bottom or top rail shall have locks with a minimum 5/8 inch throw bolt at both the top and bottom rails.

D. Cylinders shall be so designed or protected so they cannot be gripped by pliers or other wrenching devices.

E. Exterior sliding commercial entrances shall be secured as in (A, B, & D) above with special attention given to safety regulations.

F. Rolling overhead doors, solid overhead swinging, sliding or accordion garage-type doors shall be secured with a cylinder lock or padlock on the inside, when not otherwise controlled or locked by electric power operation. If a padlock is used, it shall be of hardened steel shackle, with minimum five pin tumbler operation with non-removable key when in an unlocked position.

G. Metal accordion grate or grill-type doors shall be equipped with metal guide track at top and bottom, and a cylinder lock and/or padlock with hardened steel shackle and minimum five pin tumbler operation with non-removable key when in an unlocked position. The bottom track shall be so designed that the door cannot be lifted from

the track when the door is in a locked position.

H. Outside hinges on all exterior doors shall be provided with non-removable pins when using pin-type hinges.

I. Doors with glass panels and doors that have glass panels adjacent to the door frame shall be secured as follows:
   1. Rated burglary-resistant glass or glass-like material, or
   2. The glass shall be covered with iron bars of at least one half-inch round or 1" × 1/4" flat steel material, spaced not more than five inches apart, secured on the inside of the glazing, or
   3. Iron or steel grills of at least 1/8" material of 2" mesh secured on the inside of the glazing.

J. Inswinging doors shall have rabbeted jambs

K. Wood doors, not of solid core construction, or with panels therein less than 1 3/8" thick, shall be covered on the inside with at least 16 guage sheet steel or its equivalent attached with screws on minimum 6-inch centers.

L. Jambs for all doors shall be so constructed or protected so as to prevent violation of the function of the strike.

M. All exterior doors, excluding front doors, shall have a minimum of 60 watt bulb over the outside of the door. Such bulb shall be protected with a vapor cover or cover of equal breaking resistant material.

II. Glass Windows:

A. Accessible rear and side windows not viewable from the street shall consist of rated burglary resistant glass or glass-like material. Fire Department approval shall be obtained on type of glazing used.

B. If the accessible side or rear window is of the openable type, it shall be secured on the inside with a locking device capable of withstanding a force of 300 pounds applied in any direction.

C. Louvered windows shall not be used within eight feet of ground level, adjacent structures or fire escapes.

D. Outside hinges on all accessible side and rear glass windows shall be provided with non-removable pins. If the hinge screws are accessible the screws shall be of the non-removable type.

III. Accessible Transoms:

All exterior transoms exceeding 8" × 12" on the side and rear of any building or premises used for business purposes shall be protected by one of the following:

1. Rated burglary-resistant glass or glass-like material, or
2. Outside iron bars of at least 1/2" round or 1" × 1/4" flat steel material, spaced no more than 5" apart, or
3. Outside iron or steel grills of at least 1/8" material but not more than 2" mesh.
4. The window barrier shall be secured with rounded head flush bolts on the outside.

IV. Roof Openings:

A. All glass skylights on the roof of any building or premises used for business purposes shall be provided with:
   1. Rated burglary-resistant glass or glass-like material meeting Code requirements, or
   2. Iron bars of at least 1/2" round or 1" 1 × 1/4" flat steel material under the skylight and securely fastened, or
   3. A steel grill of at least 1/8" material of 2" mesh under the skylight and securely fastened.

B. All hatchway openings on the roof of any building or premises used for business purposes shall be secured as follows:
   1. If the hatchway is of wooden material, it shall be covered on the inside with at least 16 gauge sheet steel or its equivalent attached with screws.
   2. The hatchway shall be secured from the inside with a slide bar or slide bolts. The use of crossbar or padlock must be approved by the Fire Marshal.
   3. Outside hinges on all hatchway openings shall be provided with non-removable pins when using pin-type hinges.

C. All air duct or air vent openings exceeding 8" × 12" on the roof or exterior walls of any building or premise used for business purposes shall be secured by covering the same with either of the following:
   1. Iron bars of at least 1/2" round or 1" × 1/4"

flat steel material spaced no more than 5" apart and securely fastened or

2. A steel grill of at least 1/8" material of 2" mesh and securely fastened.
3. If the barrier is on the outside, it shall be secured with rounded head flush bolts on the outside.

V. Special Security Measures:

A. Safes:
Commercial establishments having $1,000 or more in cash on the premises after closing hours shall lock such money in a Class "E" safe after closing hours.

B. Office Buildings (Multiple occupancy):
All entrance doors to individual office suites shall have a deadbolt lock with a minimum 1-inch throw bolt which can be opened from the inside.

VI. Intrusion Detection Devices:

A. If it is determined by the enforcing authority of this ordinance that the security measures and locking devices described in this ordinance do not adequately secure the building, he may require the installation and maintenance of an intrusion detection device (Burglar Alarm System)

B. Establishments having specific type inventories shall be protected by the following type alarm service:

1. Silent Alarm—Central Station—Supervised Service
   a. Jewelry Store — Mfg., wholesale, and retail
   b. Guns and ammo shops
   c. Wholesale liquor
   d. Wholesale tobacco
   e. Wholesale drugs
   f. Fur stores
2. Silent Alarm
   a. Liquor stores
   b. Pawnshops
   c. Electronic equipment
   d. Wig stores
   e. Clothing (new)
   f. Coins and stamps
   g. Industrial tool supply houses
   h. Camera stores
   i. Precious metal storage facility
3. Local Alarm (Bell outside premise)
   a. Antique dealers
   b. Art galleries
   c. Service stations

VII. Exceptions:

No portion of this Code shall supersede any local, state or Federal laws, regulations, or codes dealing with the life-safety factor.

Enforcement of this ordinance should be developed with the cooperation of the local fire authority to avoid possible conflict with fire laws.

MODEL PRIVATE DWELLING SECURITY ORDINANCE MINIMUM STANDARDS

I. Exterior Doors:

A. Exterior doors and doors leading from garage areas into private family dwellings shall be of solid core no less than 1 3/4 inches thickness.

B. Exterior doors and doors leading from garage areas into private family dwellings shall have self-locking (dead latch) devices with a minimum throw of one-half inch.

C. Vision panels in exterior doors or within reach of the inside activating device must be of burglary-resistant material or equivalent as approved by the Building Official.

D. Exterior doors swinging out shall have non-removable hinge pins.

E. In-swinging exterior doors shall have rabbeted jambs.

F. Jambs for all doors shall be so constructed or protected so as to prevent violation of the function of the strike.

II. Sliding Patio-Type Doors Opening Onto Patios or Balconies Which Are Less Than One Story Above Grade or are Otherwise Accessible From the Outside:

A. All single sliding patio doors shall have the movable section of the door sliding on the inside of the fixed portion of the door.

B. Dead locks shall be provided on all single sliding patio doors. The lock shall be operable from the outside by a key utilizing a bored lock cylinder or pin tumbler construction. Mounting screws for the lock case shall be inaccessible from the outside. Lock bolts shall be of hardened steel or have hardened steel inserts and shall be capable of withstanding a force of 800 pounds applied in any direction. The lock bolt shall engage the strike sufficiently to prevent its being disengaged by any possible movement of the door within the space or clearances provided for installation and operation. The strike area shall be reinforced to maintain effectiveness of bolt strength.

C. Double sliding patio doors must be locked at the meeting rail and meet the locking requirements of "B" above.

III. Window Protection

A. Windows shall be so constructed that when the window is locked it cannot be lifted from the frame.

B. Window locking devices shall be capable of withstanding force of 300 pounds applied in any direction.

C. Louvered windows shall not be used within eight feet of ground level.

IV. It shall be Unlawful to Furnish Overhead Garage Doors with Bottom Vents.

V. Exceptions:

No portion of this Code shall supersede any local, state or Federal laws, regulations, or codes dealing with the life-safety factor.

Enforcement of this ordinance should be developed with the cooperation of the local fire laws.

MODEL MULTIPLE DWELLING SECURITY ORDINANCE MINIMUM STANDARDS

I. Exterior Doors:

A. Exterior doors and doors leading from garage areas into multiple dwelling buildings and doors leading into stairwells below the sixth floor level shall have self-locking (dead latch) devices, allowing egress to the exterior of the building or into the garage area, or stairwell, but requiring a key be used to gain access to the interior of the building from the outside or garage area or into the hallways from the stairwell.

B. Exterior doors and doors leading from the garage areas into multiple dwelling buildings and doors leading into stairwells shall be equipped with self-closing devices, if not already required by other regulations, ordinance, or code.

II. Garage Doors:

Whenever parking facilities are provided, either under or within the confines of the perimeter walls of any multiple dwelling, such facility shall be fully enclosed and provided with a locking device.

III. All Swinging Doors to Individual Motel, Hotel, and Multi-Family Dwellings:

A. All wood doors shall be of solid core with a minimum thickness of 1 3/4 inches.

B. Swinging entrance doors to individual units shall have deadbolts with one-inch minimum throw and hardened steel inserts in addition to deadlatches with 1/2-inch minimum throw. The locks shall be so constructed that both deadbolt and deadlatch

can be retracted by a single action of the inside door knob. Alternate devices to equally resist illegal entry may be substituted subject to prior approval of the Police Department.

C. An interviewer or peephole shall be provided in each individual unit entrance door.
D. Door closers will be provided on each individual entrance door.
E. Doors swinging out shall have non-removable hinge pins.
F. In-swinging exterior doors shall have rabbeted jambs.
G. Jambs for all doors shall be so constructed or protected so as to prevent violation of the function of the strike.

IV. Sliding Patio-Type Doors Opening Onto Patios or Balconies Which Are Less Than One Story Above Grade or Are Otherwise Accessible From the Outside:

A. All single sliding patio doors shall have the moveable section of the door slide on the inside of the fixed portion of the door.
B. Dead locks shall be provided on all single sliding patio doors. The lock shall be operable from the outside by a key utilizing a bored lock cylinder of pin tumbler construction. Mounting screws for the lock case shall be inaccessible from the outside. Lock bolts shall be of hardened material or have hardened steel inserts and shall be capable of withstanding a force of 800 pounds applied in any direction. The lock bolts shall engage the strike sufficiently to prevent its being disengaged by any possible movement of the door within the space or clearances provided for installation and operation. The strike area shall be reinforced to maintain effectiveness of bolt strength.
C. Double sliding patio doors must be locked at the meeting rail and meet the locking requirements of "B" above.

V. Window Protection:

A. Windows shall be so constructed that when the window is locked it cannot be lifted from the frame.
B. Window locking devices shall be capable of withstanding a force of 300 pounds applied in any direction.
C. Louvered windows shall not be used within eight feet of ground level, adjacent structures or fire escapes.

VI. Exceptions:

No portion of this Code shall supersede any local, state or Federal laws, regulations, or codes dealing with the life-safety factors.

Enforcement of this ordinance should be developed with the cooperation of the local fire authority to avoid possible conflict with fire laws.

APPENDIX D

LOS ANGELES, CALIFORNIA SECURITY ORDINANCES

LOS ANGELES
ORDINANCE NO. 10,163

An ordinance adding Chapter 67 to Ordinance No. 2225, the Building Code, relating to security provisions.

The Board of Supervisors of the County of Los Angeles do ordain as follows:

Section 1. Chapter 67 (beginning with Section 6701) is added to Ordinance No. 2225 entitled "Building Code" adopted March 20, 1933 to read:

CHAPTER 67
SECURITY PROVISIONS

SECTION 6701 - PURPOSE

The purpose of this chapter is to set forth minimum standards of construction for resistance to unlawful entry.

SECTION 6702 - SCOPE

The provisions of this chapter shall apply to enclosed Group F.G.H.I. and J Occupancies regulated by this Code. EXCEPTION: The requirements shall not apply to enclosed Group J Occupancies having no opening to an attached building or which are completely detached.

SECTION 6703 - LIMITATIONS

No provision of this Chapter shall require or be construed to require devices on exit doors contrary to the requirements specified in Chapter 33.

SECTION 6704 - ALTERNATE SECURITY PROVISIONS

The provisions of this Chapter are not intended to prevent the use of any device or method of construction not specifically prescribed by this Code when such alternate provides equivalent security based upon a recommendation of the County Sheriff.

SECTION 6705 - DEFINITIONS

For the purpose of this Chapter, certain terms are defined as follows:

1. CYLINDER GUARD is a hardened ring surrounding the exposed portion of the lock cylinder or other device which is so fastened as to protect the cylinder from wrenching, prying, cutting or pulling by attack tools.
2. DEADLOCKING LATCH is a latch in which the latch bolt is positively held in the projected position by a guard bolt, plunger, or auxiliary mechanism.
3. DEADBOLT is a bolt which has no automatic spring action and which is operated by a key cylinder, thumbturn, or lever, and is positively held fast when in the projected position.
4. LATCH is a device for automatically retaining the door in a closed position upon its closing.

SECTION 6706 - TESTS

Sliding glass doors. Panels shall be closed and locked. Tests shall be performed in the following order:

a. Test A. With the panels in the normal position, a concentrated load of 300 pounds shall be applied separately to each vertical pull stile incorporating a locking device at a point on the stile within six inches of the locking device in the direction parallel to the plane of glass that would tend to open the door.
b. Test B. Repeat Test A while simultaneously adding a concentrated load of 150 pounds to

the same area of the same stile in a direction perpendicular to the plane of glass toward the interior side of the door.

c. Test C. Repeat Test B with the 150 pound force in the reversed direction towards the exterior side of the door.

d. Test D. E. and F. Repeat A, B, and C with the movable panel lifted upwards to its full limit within the confines of the door frame.

SECTION 6707 - TESTS

Sliding Glass Windows. Sash shall be closed and locked. Tests shall be performed in the following order:

a. Test A. With the sliding sash in the normal position, a concentrated load of 150 pounds shall be applied separately to each sash member incorporating a locking device at a point on the sash member within six (6) inches of the locking device in the direction parallel to the plane of glass that would tend to open the window.

b. Test B. Repeat Test A while simultaneously adding a concentrated load of 75 pounds to the same area of the same sash member in the direction perpendicular to the plane of glass toward the interior side of the window.

c. Test C. Repeat Test B with the 75 pounds force in the reversed direction towards the exterior side of the window.

d. Test D, E, and F. Repeat Tests A, B, and C with the movable sash lifted upwards to its full limit within the confines of the window frame.

SECTION 6708 - DOORS - General

A door forming a part of the enclosure of a dwelling unit or of an area occupied by one tenant of a building shall be constructed, installed, and secured as set forth in Sections 6709, 6710, 6711, and 6712, when such door is directly reachable or capable of being reached from a street, highway, yard, court, passageway, corridor, balcony, patio, breezeway, private garage, portion of the building which is available for use by the public or other tenants or similar area. A door enclosing a private garage with an interior opening leading directly to a dwelling unit shall also comply with said Sections 6709, 6710, 6711, and 6712.

SECTION 6709 - DOORS - Swinging Doors

a. Swinging wooden doors, openable from the inside without the use of a key and which are either of hollow core construction or less than 1 3/8 inches in thickness, shall be covered on the inside face with 16 gage sheet metal attached with screws at six (6) inch maximum centers around the perimeter or equivalent. Lights in doors shall be as set forth in Sections 6714 and 6715.

b. A single swinging door, the active leaf of a pair of doors, and the bottom leaf of Dutch doors shall be equipped with a deadbolt and a deadlocking latch. The deadbolt and latch may be activated by one lock or by individual locks. Deadbolts shall contain hardened inserts or equivalent, so as to repel cutting tool attack. The lock or locks shall be key operated from the exterior side of the door and engaged or disengaged from the interior side of the door by a device not requiring a key or special knowledge or effort. EXCEPTION:

1. The latch may be omitted from doors in Group F and G occupancies.
2. Locks may be key or otherwise operated from the inside when not prohibited by Chapter 33 or other laws and regulations.
3. A swinging door of width greater than five (5) feet may be secured as set forth in Section 6711. A straight deadbolt shall have a minimum throw of one inch and the embedment shall be not less than 5/8 inch into the holding device receiving the projected bolt, a hook shape or expending lug deadbolt shall have a minimum throw of 3/4 inch. All deadbolts of locks which automatically activate two or more deadbolts shall embed at least 1/2 inch but need not exceed 3/4 inch into the holding devices receiving the projected bolts.

c. The inactive leaf of a pair of doors and the upper leaf of Dutch doors shall be equipped with a deadbolt or deadbolts as set forth in Subsection (b). EXCEPTION:

1. The bolt or bolts need not be key operated, but shall not be otherwise activated from the exterior side of the door.
2. The bolt or bolts may be engaged or disengaged automatically with the deadbolt or by

another device on the active leaf or lower leaf.

3. Manually operated hardened bolts at the top and bottom of the leaf and which embed a minimum of 1/2 inch into the device receiving the projected bolt may be used when not prohibited by Chapter 33 or other laws and regulations.

d. Door stops on wooden jambs for in-swinging doors shall be of one piece construction with the jamb or joined by a rabbet.
e. Nonremovable pins shall be used in pin-type hinges which are accessible from the outside when the door is closed.
f. Cylinder guards shall be installed on all mortise or rim-type cylinder locks installed in hollow metal doors whenever the cylinder projects beyond the face of the door or is otherwise accessible to gripping tools.

SECTION 6710 - DOORS - Sliding Glass Doors.

Sliding glass doors shall be equipped with locking devices and shall be so installed that, when subjected to tests specified in Section 6706, remain intact and engaged. Movable panels shall not be rendered easily openable or removable from the frame during or after the tests. Cylinder guards shall be installed on all mortise or rim-type cylinder locks installed in hollow metal doors whenever the cylinder projects beyond the face of the door or is otherwise accessible to gripping tools.

SECTION 6711 - DOORS - Overhead and Sliding Doors.

Metal or wooden overhead and sliding doors shall be secured with a cylinder lock, padlock with a hardened steel shackle, metal slide bar, bolt or equivalent when not otherwise locked by electric power operation.

Cylinder guards shall be installed on all mortise or rim-type cylinder locks installed in hollow metal doors whenever the cylinder projects beyond the face of the door or is otherwise accessible to gripping tools.

SECTION 6712 - DOORS - Metal Accordion Grate or Grille-type Doors.

Metal accordion grate or grille-type doors shall be equipped with metal guides at top and bottom and a cylinder lock or padlock and hardened steel shackle shall be provided. Cylinder guards shall be installed on all mortise or rim-type cylinder locks installed in hollow metal doors whenever the cylinder projects beyond the face of the door or is otherwise accessible to gripping tools.

SECTION 6713 - LIGHTS - In General.

A window, skylight, or other light forming a part of the enclosure of a dwelling unit or of an area occupied by one tenant of a building shall be constructed, installed, and secured as set forth in Section 6714 and 6715, when the bottom of such window, skylight or light is not more than 16 feet above the grade of a street, highway, yard, court, passageway, corridor, balcony, patio, breezeway, private garage, portion of the building which is available for use by the public or other tenants, or similar area.

A window enclosing a private garage with an interior opening leading directly to a dwelling unit shall also comply with said Sections 6714 and 6715.

SECTION 6714 - LIGHTS - Material.

Lights within forty (40) inches of a required locking device on a door when in the closed and locked position and openable from the inside without the use of a key, and lights with a least dimension greater than six (6) inches but less than forty-eight (48) inches in F and G Occupancies, shall be fully tempered glass approved burglary-resistant material or guarded by metal bars, screens or grilles in an approved manner.

SECTION 6715 - LIGHTS - Locking Devices.

a. Sliding glass windows shall be provided with locking devices that, when subjected to the tests specified in Section 6707, remain intact and engaged. Movable panels shall not be rendered easily openable or removable from the frame during or after the tests.
b. Other openable windows shall be provided with substantial locking devices which render the building as secure as the devices required by this section. In Group F and G Occupancies, such devices shall be a glide bar, bolt, cross bar, and/or padlock with hardened steel shackle.
c. Special louvered windows, except those above the first story in Group H and I Occupancies which cannot be reached without a

ladder, shall be of material or guarded as specified in Section 6714 and individual panes shall be securely fastened by mechanical fasteners requiring a tool for removal and not accessible from the outside when the window is in the closed position.

SECTION 6716 - OTHER OPENINGS - In General.

Openings, other than doors or lights, which form a part of the enclosure, or portion thereof, housing a single occupant and the bottom of which is not more than sixteen (16) feet above the grade of a street, highway, yard, court, passageway, corridor, balcony, patio, breezeway, or similar area, or from a private garage, or from a portion of the building which is occupied, used or available for use by the public or other tenants, or an opening enclosing a private garage attached to a dwelling unit which openings therein shall be constructed, installed, and secured as set forth in Section 6717.

SECTION 6717 - HATCHWAYS, SCUTTLES AND SIMILAR OPENINGS

a. Wooden hatchways less than 1¾-inch thick solid wood shall be covered on the inside with 16 gage sheet metal attached with screws at six (6) inch maximum centers around perimeter.
b. The hatchway shall be secured from the inside with a slide bar, slide bolts, and/or padlock with a hardened steel shackle.
c. Outside pin-type hinges shall be provided with non-removable pins.
d. Other openings exceeding ninety-six (96) square inches with a least dimension exceeding eight (8) inches shall be secured by metal bars, screens, or grilles in an approved manner.

Section 2. This ordinance shall be published in the Journal of Commerce and Independent Review, a newspaper printed and published in the County of Los Angeles.

(Seal) WARREN M. DORN
Chairman.

Attest: JAMES S. MIZE
Executive Officer-Clerk of the Board of Supervisors of the County of Los Angeles

I hereby certify that at its meeting of December 8, 1970, the foregoing ordinance was adopted by the Board of Supervisors of said County of Los Angeles by the following vote, to wit:

Ayes: Supervisors Kenneth Hahn, Ernest E. Debs, Burton W. Chace and Warren M. Dorn.

Noes: None.

(Seal) JAMES S. MIZE
Executive Officer-Clerk of the Board of Supervisors of the County of Los Angeles.

Effective date January 8, 1971.

(95918) Dec. 18

APPENDIX E

A MODEL FOR ESTIMATING AGGREGATE DETERRENCE AND APPREHENSION EFFECTS

A MODEL FOR ESTIMATING AGGREGATE DETERRENCE AND APPREHENSION EFFECTS

Burglary prevention programs have the objective of increasing both the probability of apprehending a burglar and decreasing the number of people who become burglars or continue their burglary career. An overview of apprehension and deterrence is given in Figure 2 (page 18), showing the major flows away from a potential burglary. A model is presented in this appendix for computing the direct effect of apprehension and incarceration so that the remaining effects can be attributed to deterrence, changes in population, and error.

Numerous simplifying assumptions have been made. The two most critical are that (1) there are only two kinds of people: burglars and non-burglars and (2) the activity of a burglar can be described by average values. The approach for doing this is based on the relation:

$$\text{Man-burglaries per day}^{*} = \frac{\text{Active Burglars}}{\text{Average days between reported burglaries per burglar}}$$

The direct effect of apprenhension and incarceration is to increase the number of days between burglaries per burglar; the effect of deterrence is to decrease the number of active burglars. To factor out these two effects, a few definitions are needed:

- r = fraction of burglaries that are reported
- a = average number of burglars involved in a burglary
- n = total number of active burglars in the community (includes both those at large as well as those in custody)
- p = probability that a burglar will be arrested for committing a reported burglary
- d = Average number of days between burglaries for a burglar at large as derived from the best judgment of the police
- t = average number of days spent incarcerated following an arrest for burglary
- B = average number of reported burglaries per day

In terms of these quantities, the following terms can be defined:

Man-burglaries per day (reported) = Ba

Average number of days between reported burglaries = $\frac{d}{r} + pt$

and the relation is $B = \dfrac{n/a}{\frac{d}{r} + pt}$

This relation states that the reported burglary rate will decrease as a result of any one of the following changes:

- The total number of burglars (n) decreases
- The average number of burglars working together on a single burglary (a) increases
- The average number of days between burglaries for a burglar (d) increases
- The reporting rate for burglary (r) decreases
- The probability of arrest (p) increases
- The average length of incarceration (t) increases.

To evaluate deterrence, the direct effect of apprehension and incarceration must be factored out. For this purpose the following estimates could be used:

- B = average reported burglaries per day derived from police crime reports
- t = $\dfrac{\text{average census of incarcerated burglars}}{\text{average number of burglary arrests per day}}$
- a = average number of burglars involved in a burglary as derived from the best judgment of the police department (to be held constant at whatever value is selected)

*One burglar committing one burglary is one "man-burglary." If there were two burglars, then there would be two "man-burglaries."

r = fraction of burglaries reported as derived from the best judgment of the police aided by results of victimization surveys[1]

$$p = \frac{\text{(average daily arrests for burglary}}{\text{Ba}}$$

d = average number of days between burglaries for a burglar at large as derived from the best judgment of the police

With these estimates, the average census of burglars can be computed by

$$n = Ba\left(\frac{d}{r} + pt\right),$$

of which a fraction $\left(\frac{pt}{\frac{d}{r} + pt}\right)$ is incarcerated

and the remaining fraction are free and committing burglaries. The fraction of burglars incarcerated provides an estimate on how much burglary is prevented by apprehension itself, assuming it has no deterrent effect on any burglar.

[1] See *Crime in the Nation's Five Largest Cities*, National Crime Panel Surveys of Chicago, Detroit, Los Angeles, New York, and Philadelphia, Advance Report, April 1974, and *Crime in Eight American Cities*, National Crime Panel Surveys of Atlanta, Baltimore, Cleveland, Dallas, Denver, Newark, Portland, and St. Louis, Advance Report, July 1974, U.S. Department of Justice, LEAA, National Criminal Justice Information and Statistics Service, Washington, D.C.

Under the assumptions[2]

$$p = \frac{\left(\frac{\text{arrests}}{\text{total burglaries}}\right)}{\left(\frac{\text{burglars}}{\text{burglary}}\right)} =$$

$$\frac{\left(\frac{\text{One arrest}}{\text{6 known burglaries}}\right)\left(\frac{\text{6 known burglaries}}{\text{10 total burglaries}}\right)}{\left(\frac{\text{1.4 burglars}}{\text{burglary}}\right)} = 0.07$$

$$t = \frac{\text{31 man days in jail}}{\text{burglary arrest}}$$

$$r = \frac{\text{6 known burglaries}}{\text{10 total burglaries}}$$

d = 3 days between burglaries,

at any given time 30 percent of burglars are incarcerated and all burglaries are due to the remaining 70 percent of burglars at large.

While a department may not undertake an evaluation based on a model such as used above, it should at least conduct periodic analyses of the type mentioned in Chapter IV for the components of a prevention program.

If the estimated number of burglars, *n*, is computed periodically—say yearly—the changes in *n* will reflect changes in deterrence other than the direct effect of apprehension and incarcerations, assuming other factors have been accounted for—such as population.

[2] These values were derived from the following available data sources: (1) 1972 FBI Uniform Crime Report; (2) Survey of Inmates of Local Jails 1972-Advanced Report by LEAA, and (3) Survey of adjudicated burglars done by Urban Systems Research and Engineering Inc., Cambridge, Mass., 1973.

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☆ U.S. GOVERNMENT PRINTING OFFICE: 1976 O—592-746

PRESCRIPTIVE PACKAGE: POLICE BURGLARY PREVENTION PROGRAMS

To help LEAA better evaluate the usefulness of Prescriptive Packages, the reader is requested to answer and return the following questions.

1. What is your general reaction to this Prescriptive Package?
   [ ] Excellent [ ] Above Average [ ] Average [ ] Poor [ ] Useless

2. Does this package represent best available knowledge and experience?
   [ ] No better single document available
   [ ] Excellent, but some changes required (please comment)
   [ ] Satisfactory, but changes required (please comment)
   [ ] Does not represent best knowledge or experience (please comment)

3. To what extent do you see the package as being useful in terms of: (check one box on each line)

	Highly Useful	Of Some Use	Not Useful
Modifying existing projects	[ ]	[ ]	[ ]
Training personnel	[ ]	[ ]	[ ]
Adminstering on-going projects	[ ]	[ ]	[ ]
Providing new or important information	[ ]	[ ]	[ ]
Developing or implementing new projects	[ ]	[ ]	[ ]

4. To what specific use, if any, have you put or do you plan to put this particular package?
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   [ ] Training personnel
   [ ] Developing or implementing new projects

5. In what ways, if any, could the package be improved: (please specify), e.g. structure/organization; content/coverage; objectivity; writing style; other)

6. Do you feel that further training or technical assistance is needed and desired on this topic? If so, please specify needs.

7. In what other specific areas of the criminal justice system do you think a Prescriptive Package is most needed?

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